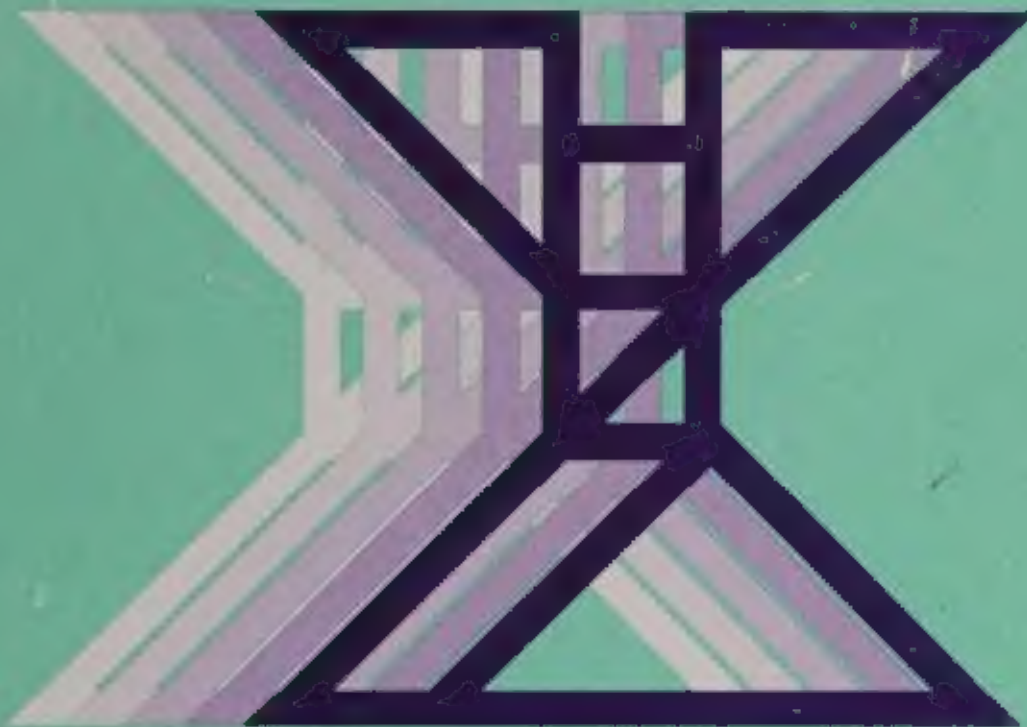


Nursing Management

A Systems Approach

THIRD EDITION



Dee Ann Gillies

Linda Walling
Wallinge

Nursing Management

A Systems Approach



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Nursing Management: A Systems Approach

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This book is dedicated
with love and gratitude to:
Bill and Bertha,
William and Mary,
and, most of all,
Rex and Fay

Preface

To operate successfully in today's highly competitive environment, a health agency must consistently deliver high-quality, cost-effective care to clients. Nursing care is the principal service offered by most health agencies. Therefore, effective nursing management is a major determinant of health agency success.

Nursing Management: A Systems Approach describes nursing management as a process that parallels and supports the nursing process. Therefore, nursing management—like the nursing process—includes steps of data gathering, diagnosing, planning, implementing, and evaluating. The book's organization reflects this framework.

Effectiveness of nursing management depends on the quality of response engendered in the employees. Therefore, management should be viewed from the standpoint of the general systems theory. Nursing management is a set of interrelated events that includes input of energy, material, and information; transformation of this input into desired patient care and staff development; and continuous monitoring of inputs and throughputs to ensure optimum system functioning.

This book presents theories, principles, and practical applications for all steps of the management process. It can be used as a text or reference book for undergraduate or graduate nursing management courses. Selected planning, evaluation, and control tools are included to provide models for inexperienced managers to emulate. The book contains information of interest to managers at all hierarchical levels, and to staff nurses who seek management responsibilities. The book reflects values, goals, skills, and attitudes that typify nurse managers in acute and chronic, inpatient and outpatient settings. Thus, it can be used to orient health agency administrators, physicians, and members of other health disciplines to the concerns of nurse managers with whom they interact.

The third edition of the book has been expanded to update information contained in the second edition and to include information about managed care, clinical research, shared governance, Japanese management principles, nursing ethics, and nursing expert systems. The third edition also contains two new study features: (1) advance organizers and (2) research study examples.

Advance Organizers: According to Ausubel's subsumption theory of learning,¹ information is stored in long-term memory as a hierarchical structure where a small number of general, nondifferentiated, highly inclusive concepts subsume and organize a large number of highly differentiated, specific facts. Studies show that students can more easily assimilate and retain a large volume

of unfamiliar information if, preceding instruction, a general organizing concept is inserted into cognitive structure to anchor forthcoming instructional content. Content organizers called *Memo Capsules* are included in each chapter to identify the key ideas to which detailed text material should be anchored in memory.

Research Study Examples: At the end of each chapter is a *Research Brief* containing a brief summary of a research study relating to the chapter content. Each research summary contains the following information: study topic, purpose, sample characteristics, method, findings, and application of findings. These research summaries are included to emphasize that nursing management, like clinical nursing, can be research based.

Dee Ann Gillies

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1. Ausubel, D. Cognitive structure and the facilitation of meaningful verbal learning. In R. Anderson and D. Ausubel, eds., *Readings in the Psychology of Cognition*. New York: Holt, Rinehart & Winston, pp. 103-115, 1966.

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The Nursing Management Process

Just as there is a nursing process by which nurses provide care, cure, and comfort for individual patients, there is a management process by which nurse managers work with others to provide care for groups of patients.

Effective nursing care is a sequence of carefully integrated steps, in which thoughtful planning and preparation precede intervention. The nursing process facilitates individualized patient care. The management process facilitates conservation of scarce resources.

Professional nursing decisions follow the scientific model: they are problem oriented, based on facts, logically constructed, and revised in response to feedback. The nursing and management processes facilitate professional practice by encouraging hypothesis formation, data collection, outcome evaluation, and theory building. Consistent use of the nursing or management process prepares individuals for self-motivated, autonomous, and collaborative behavior.

Management is the process of getting work done through others. Nursing management is the process of working through nursing personnel to provide care, cure, and comfort to groups of patients. The nurse manager's task is to plan, organize, direct, and control available financial,

material, and human resources in order to provide effective, economic care to groups of patients.

The nursing management process parallels the nursing process that it is designed to facilitate (Fig. A). The management process, like the nursing process, includes gathering facts, diagnosing problems, planning interventions, executing plans, and evaluating outcomes.

Nurse managers direct the efforts of many workers, rather than one. Therefore, each step of the management process is more complex than the comparable step of the nursing process. For example, the data-gathering step of the management process consists of accumulating information not only about patients but also about agency, community, work force, and environmental constraints.

The planning step of the management process consists of determining care needs of different patient groups, nursing objectives, budgetary allotments, required staff, optimum organizational structure, and appropriate policies and procedures.

Because management entails working with others, the implementation step of the management process consists of directing groups of nurses to implement planned actions. Directing

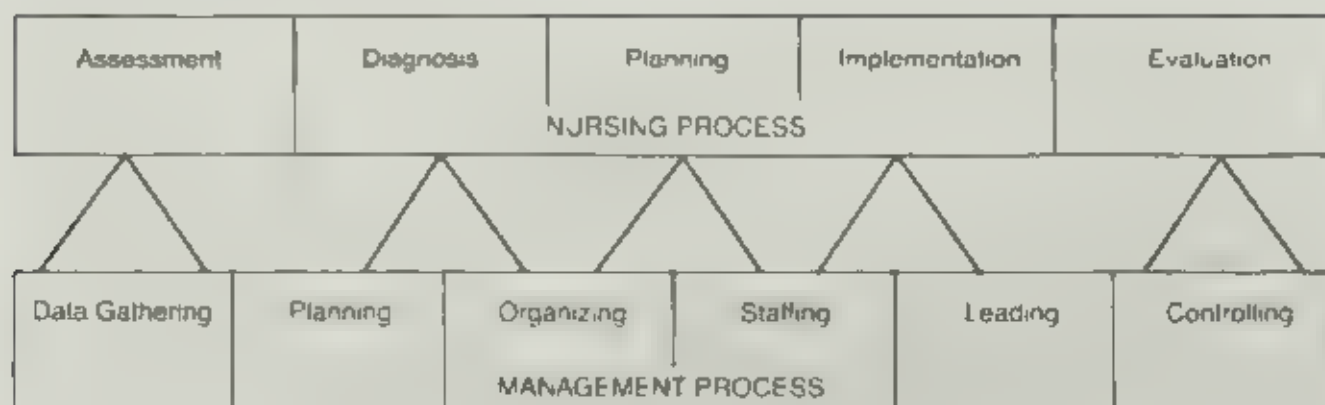


Figure A The nursing management process supports the nursing process

employees includes leading, communicating, and motivating.

The final step of the management process is also more complex than that of the nursing process. In the nursing process, patient care is evaluated to determine whether the nurse's interventions should change. Thus, the purpose of nursing process evaluation is correction. In the final step of the management process, the actions of multiple caregivers, patient outcomes, and costs are evaluated to improve total system functioning. Hence, the final step in the management process is cost control and quality improvement.

An effective manager uses the management process to achieve agency goals through efforts of the total work group. In directing employees, an effective manager follows a predetermined plan rather than momentary whim. The overall plan for the nursing department is developed in conjunction with nurses from all hierarchical levels and specifies what needs to be done, in what manner, for what reason, for whom, and with what resources. An effective manager maximizes employee effectiveness through control measures that identify problems as soon as they develop and implements appropriate remedies.

A process is a series of actions leading to a goal. In the nursing process, the goals are relief of symptoms, elimination of hazards, prevention of complications, provision of health knowledge, and augmentation of self-care ability. In the management process, the goals are

effective, economical care for groups of patients, and occupational development of staff members.

Each step in the management process—data gathering, planning, organizing, staffing, leading, and controlling—affects all other steps and influences patient care quality (Figs. B and C). Information about legal constraints acquired during the data-gathering step will determine policies established during the planning step. The type of nursing budget developed during the planning step will determine accounting reports used in the control step. The nursing department structure designed during the planning step will determine administrator-employee communication during the leading step. Motivational techniques used in the leading step will influence personnel evaluations and quality indices obtained during the control step. Data about patient care quality obtained in the control step will determine care-delivery models and staffing ratios in the planning step. Labor agreements and disciplinary procedures developed for the control step will guide selection criteria and orientation programs in the staffing step. The nursing management process, like the nursing process, is self-regulating and self-correcting.

Because the nursing management process consists of several steps—and each entails myriad facts and actions—the process is best understood from a systems viewpoint. The management process (system) is a series of interre-

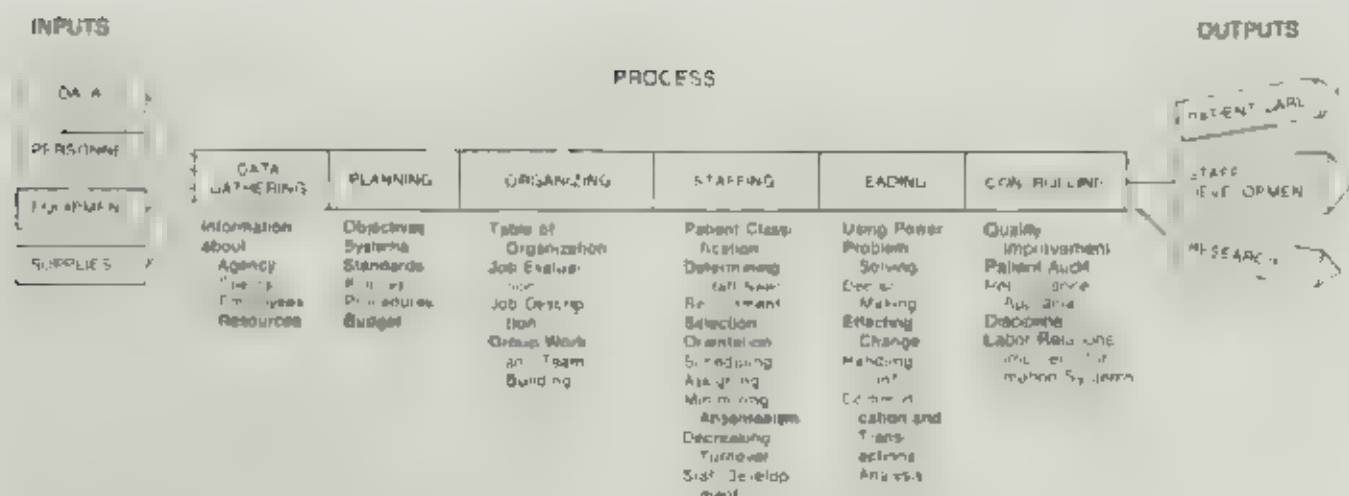


Figure B The nursing management system.

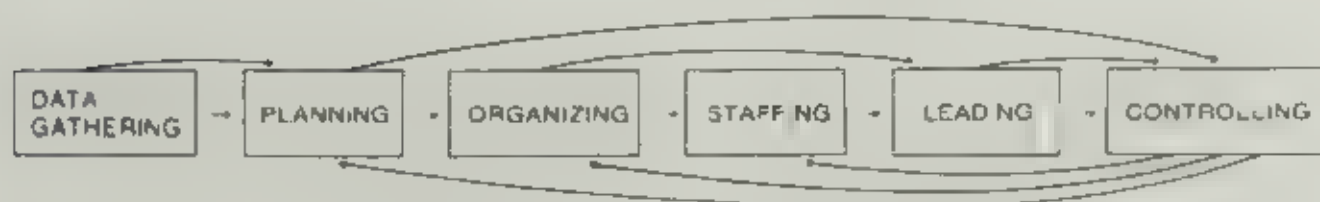


Figure C The nursing management process. All system components are interrelated.

lated events that are influenced by environmental factors. A system consists of five elements: input, processor, output, controls, and feedback mechanisms. Nursing management inputs are information, personnel, equipment, supplies, and patients. The system processor is the group of nurse managers who have authority for planning, directing, and controlling nursing operations. Nursing management outputs are patient care, staff development, and research. Nursing management controls are agency philosophy, nursing goals, nursing budget, personnel policies, disciplinary process, union contracts, and licensing/accreditation regulations. Nursing management feedback includes financial reports, quality-monitoring reports, employees' peer reviews, and accreditation survey reports. Because the steps of nursing management constitute a system, a change in any management step will alter all other steps.

To identify the systemwide effects of any

management change, the manager should view each management function as a subsystem of the management system, with its own inputs, throughputs, outputs, and feedback. Tables A through E give examples.

The manager who uses a systems approach is unlikely to handle nursing problems simplistically. A systems model shows that (1) each fact and measure has significance beyond surface import; (2) each action is met with reaction; and (3) each intervention has both intended and unintended consequences.

As Figures A through C show, nursing management is an extremely complex process. Management responsibility should be conferred on intelligent, confident, diplomatic, flexible, and imaginative nurses with specific training for leadership. To be successful, even the most capable manager needs support from employees who understand and support the management process.

Table A Gathering Data about Agency Clients

Input	Throughput	Output
Data from	Processing of patient data by	Outcomes of processing patient data:
Annual reports	Reading	Daily patient census
Monthly statistical reports	Discussing	Portion of total patient census composed of patients in each clinical or diagnostic group
Medical staff reports	Computing	Average length of stay
Quality-monitoring data	Comparing statistics with national and regional statistics	Incidence of various complications
Patient case studies	Comparing current with past data	Treatment compliance rates
Patient charts		Utilization review information
Patient interviews		Quality-monitoring data
Patient surveys		Patient satisfaction data

Table B Gathering Data about Nursing Personnel

Input	Throughput	Output
Data from	Processing employee data by	Outcomes of processing data
Personnel files	Reading	Knowledge of
Employee interviews	Interviewing	Seniority rates
Performance evaluations	Discussions with patients	Educational background
Counseling records	Observation of work	Experiential background
Disciplinary records	Consultation with coworkers	Professional interests
Personnel profiles	Comparison with regional or national statistics	Attendance records
Attendance and turnover rates	Discussions with employees	Turnover rates
Educational records		Skill level
Exit interviews		Professional aspirations
Equal Employment Opportunity reports		Social abilities
Academic course grades		Sensitivity to
		Values
		Fears
		Resentments
		Strengths
		Weaknesses
		Curiosity regarding
		Motivation factors
		Group dynamics effects
		Educational methods
		Work hazards and difficulties

Table C Staffing

Input	Throughput	Output
Agency purpose and goals	Recruiting	Personnel roster(s)
Agency objectives	Assessing	Payroll roster(s)
Table of organization	Selecting	Orientator on duties
Job evaluations	Hiring	Personnel on/off duty schedules
Job descriptions	Orienting	Assignment roster(s)
Labor statistics	Scheduling	Balanced staff workload ratio
Local labor pool	Assigning	Minimal staff absenteeism
Interviewing skills	Developing	Minimal use of agency and overtime workers
Patient classification system	Disciplining	Ready pool of qualified candidates for mid-
Patient census forecasts	Promoting	dle- and upper-level nursing positions
		Effective patient care
		Nurse retention

Table D Leading

Input	Throughput	Output
Communication skills	Assigning	Effective patient care
Personal attractiveness	Informing	Employee self-actualization
Positional power	Directing	Significant contributions to nursing knowledge and
Nursing expertise	Supervising	techniques through practice advancements and
Problem-solving skills	Motivating	research findings
	Counseling	

Table E Quality Improvement

Input	Throughput	Output
Length-of-stay standards for various diagnoses	Observation of nurses giving care	information for use in Revision of
Quality criteria	Comparison of chart records with preestablished care standards	Administrative policies
Nursing practice standards		Nursing standards
Administrative policies	Analytical survey tours of patient service areas	Nursing procedures
Nursing procedures	Review of morbidity and mortality statistics	Job descriptions
Quality-monitoring survey forms	Peer review	Remedial instruction of nursing staff members
Patient outcome standards	Analysis of survival rates, complication rates, length-of-stay statistics	Performance counseling of nursing staff members
	Analysis of patient interview or questionnaire responses	Disciplining of recalcitrant employees





I DATA GATHERING

Situational Assessment

The facts are friendly.

CARL ROGERS

OBJECTIVES

After reading this chapter, you should be able to:

1. Outline an orientation program for a nurse manager in your agency, indicating the information needed and the best source of information about the agency's:
 - a. Purpose and goals
 - b. Service, education, and research programs
 - c. Financial support
 - d. Assets
 - e. Clients/customers/patients
 - f. Employees
 - g. Operational problems
 - h. Future direction

The management process, like the nursing process, utilizes the steps of the scientific method. First, an hypothesis or goal is established to direct problem-solving or work flow. Information is obtained about the problem or goal for use in planning the approach to problem resolution or project completion. Responsibility for each aspect of the plan is assigned to a specific person. When the project is under way, data are gathered about ongoing events. These data are analyzed to confirm hypotheses and evaluate the effectiveness of the action plan. Finally, initial hypotheses or goals are con-

firmed, rejected, or amended, on the basis of observed evidence (Fig. 1-1).

SYSTEMS APPROACH TO SITUATIONAL ASSESSMENT

A nurse manager's first step in approaching a new job is to assess work responsibilities, work environment, and work force. This triple-barreled assessment requires the manager to gather and analyze a considerable amount of information. To interpret this information correctly, the manager should adopt a systems approach. Systems inputs would include goals,

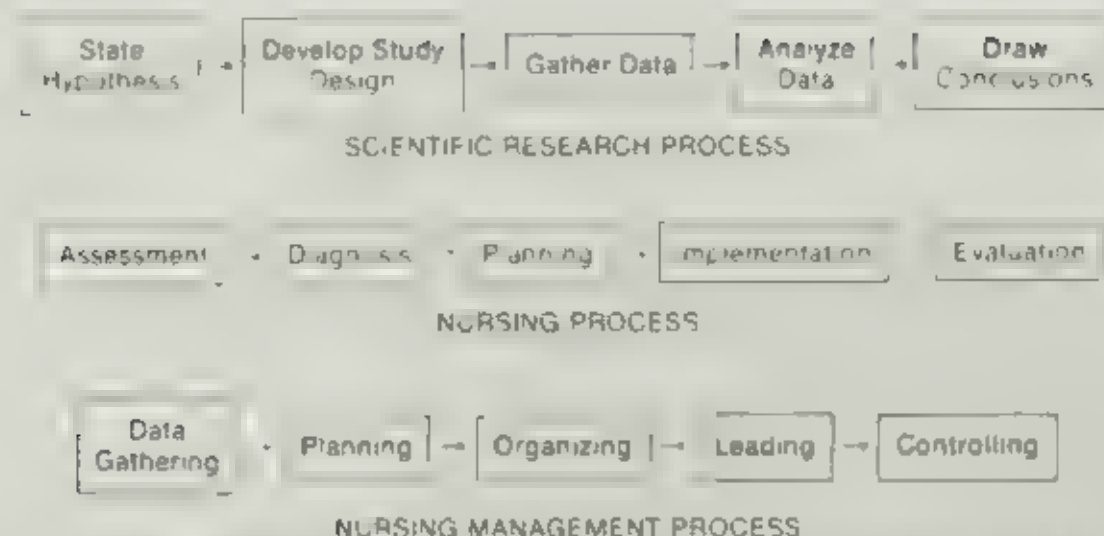


Figure 1-1 Similarities between the scientific method, the nursing process, and the management process

supplies, equipment, personnel, physical plant, information, financial resources, and plans. Inputs must be processed, that is, selected, manipulated, analyzed, and transformed, to convert raw data into information of use in directing employees' efforts. Throughputs include processes for employee recruitment, orientation, and supervision; procedures for patient care planning and delivery; and measures for coordinating contributions of dissimilar employees. Outcomes would include patient care, patient and family teaching, staff education, research, and public relations. Appropriateness of inputs, throughputs, and outputs can be evaluated only in relationship to one another, or from a systems viewpoint.

A new manager must consider numerous facts to understand job responsibilities. A model of some type is needed to organize these facts for comprehension. A manager might begin with global overview of the nation's health industry, then investigate the agency's position within the health industry, then scrutinize successively smaller units of the agency: nursing department, nursing division, patient care unit, primary work group (Fig. 1-2). A newly hired manager should analyze the agency on beginning employment, because unique features of each organization call for modification of one's

usual management approach. A manager who has been promoted from caregiver position in the same agency would be advised to reanalyze agency characteristics, because organizational purpose, philosophy, and programs change through time.

A health agency is an open system. As such, it reflects society's status concerns, value systems, and behavioral norms. At the same time, each agency has its own character, because forces within the organization produce persistent behavioral patterns that crystallize into persistent social structures. To lead effectively, a nurse manager must comprehend behavioral demands of her or his own and coworkers' roles and effects of organization structure on performance (Fig. 1-3).

VALUES AND BELIEFS

Many values and beliefs held by health care workers derive from the total society and regional culture in which they are embedded. A generation ago, health agencies were primarily concerned about the quality of patient services, so institutional goals focused on providing ever more and better care to patients and families. Recently, financial pressures have caused increasing concern about health care costs, so institutional goals focus on increasing productiv-

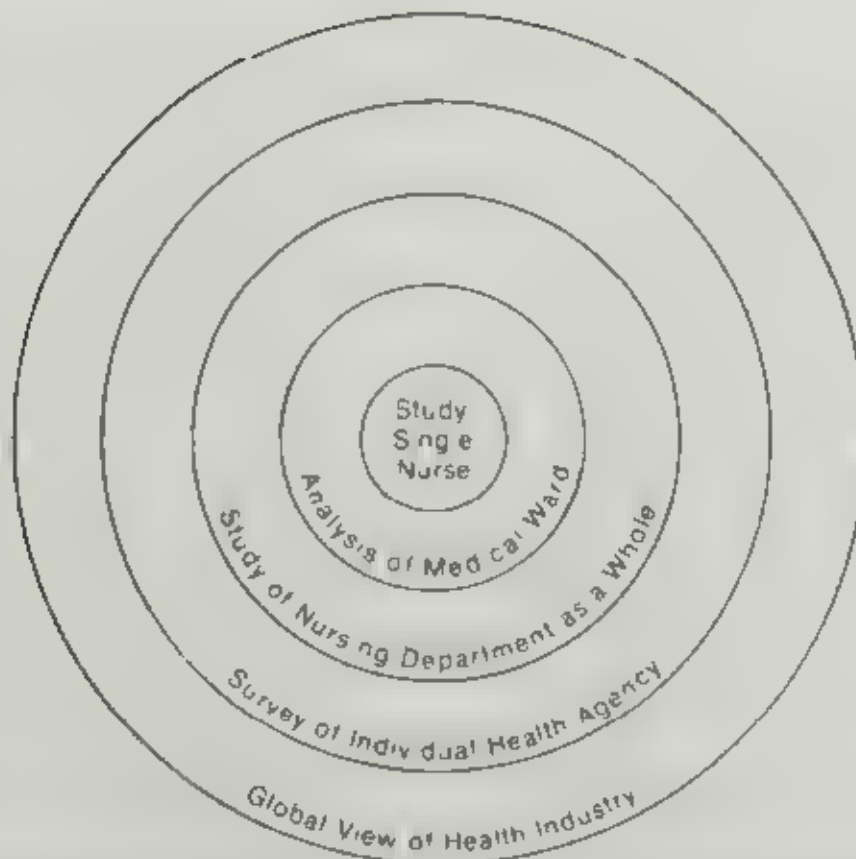


Figure 1-2 Successive levels of attention in gathering nursing management information

ity and containing costs, in addition to improving patient care quality.

Traditional American values affect the structure and function of health agencies. Americans admire large size, high volume, power, social

mobility, pragmatism, and popularity. During the 1960s and 1970s, these values supported rapid expansion of health care facilities, power struggles among health disciplines, development of career ladders, introduction of participative

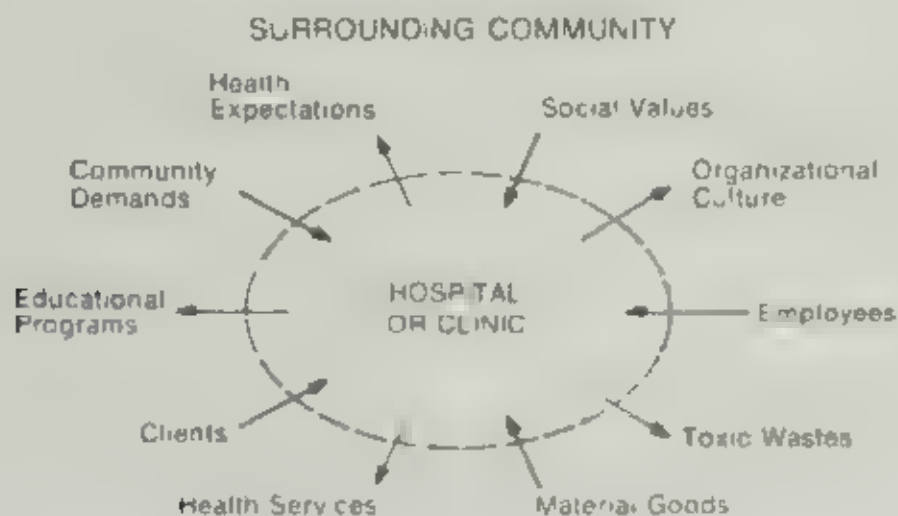


Figure 1-3 The health agency as an open system.

management, and aggressive marketing of health services. A manager can assess the agency's sensitivity to societal pressures by determining whether and when these developments occurred in the organization.

ORGANIZATIONAL CULTURE

Each agency develops a unique culture that emphasizes some values and beliefs of the larger society and minimizes others. A hospital that is linked to a university medical center is likely to emphasize progressive, innovative, values by encouraging health research, educating health workers, and providing high-tech care to the acutely ill and severely injured. A small-town nursing home may emphasize conservative, supportive, and protective ideals by providing family-related, religiously oriented custodial care to chronically ill and aged persons from the same community. Organizational culture consists of a set of enduring, organizationwide beliefs and values that become established as norms and determine employee perceptions and behavior.

Knowing whether the agency is progressive or conservative enables a manager to predict administrators' and coworkers' responses to the manager's efforts to modify programs, policies, and procedures. It is important to identify the organizing principle that guides agency operations. For example, agency management may be based on objectives, performance standards, a particular leadership style, a matrix structure, a systems model, or a management information system. Although all organizations possess objectives, standards, procedures, structure diagram, and official reporting system, scrutiny of day-to-day operations will reveal that leaders rely on one of these more than the others to organize activities. After identifying the guiding management principle, the manager can emphasize that principle in her or his own leadership to avoid confusing coworkers.

To motivate subordinates, a new manager should determine whether nurses are rewarded chiefly for clinical or managerial success. Details

of the organizational diagram and pay plan will show whether status and salary advances are linked to clinical performance or leadership skill. Staff profiles and personnel files will reveal whether most managers rose to leadership through exemplary staff nurse performance or chairmanship of productive committees. In-service records will show what proportion of in-house educational offerings relate to clinical and management topics, the number of nurses enrolled in each program, and whether enrollments were voluntary. If the evidence indicates that agency rewards are tied to clinical performance, the manager must use strong persuasion when encouraging nurses to attend classes on group dynamics or budgeting techniques. If rewards are tied to leadership activities, the manager can increase interest in clinical topics by explaining how clinical expertise augments the power of the head nurse or unit manager.

Agency History and Role

On entering a health agency, or taking a new job in the same agency, a wise manager will review agency history and role in community life. A metropolitan tax-supported hospital may serve as primary care provider to the poor if a dearth of private physicians in ghetto neighborhoods causes inner-city residents to seek care in the hospital's emergency room. A church-affiliated hospital in a small town may be expected to provide vocational training for a variety of health workers if area community colleges have no health career programs. A private hospital in a middle-class suburb may be expected to provide such social assistance programs as outpatient treatment for alcoholism, adolescent drug counseling, sex education and family planning, prenatal family education, well-baby care, nutrition and weight control.

Knowledge of the agency's community contributions and response from citizens enables a new manager to support outreach programs that enhance agency image and eliminate ineffective services.

AGENCY GOVERNING BOARD

A new manager should investigate the composition and past actions of its governing board. The governing body of a hospital or clinic is legally responsible for agency property and assets, so is chiefly concerned with acquisition and use of such organizational resources as capital for building projects and funds for service, education, and research. Because a health agency's most valuable asset is its reputation, the governing board is concerned with ensuring the quality of patient services and representing agency interests in the community. Although the board delegates authority for operating the agency to the hospital or clinic administrator, such delegation does not relieve the board of legal responsibility for the quality of services to clients.

The majority of services in an inpatient facility are provided by nursing staff. Therefore, the nurse executive is expected to keep the board informed about the type(s) and amount of nursing services provided, the patient outcomes of these services, and the special needs and problems of the nursing department. Ideally, the nurse executive should deliver this information to the board in person, during the group's regular meetings, so she or he may acquire firsthand information about the board's intentions and expectations concerning present and future programs. A chief nurse who communicates directly with the agency's board of directors (rather than indirectly through the agency administrator) is more apt to influence agency goals and obtain permission to implement nursing innovations and improvements.

A nursing background is needed to effectively argue the benefits of hiring a clinical nurse specialist, instituting primary care nursing, or developing a dual track nursing career ladder. Attendance at governing board meetings also permits the nurse administrator to observe interplay between board members, agency administrator, and the medical director. These interactions may be stress-ridden and contentious

and have long-range consequences for agency nurses. Pressure from a board member to reduce personnel costs may cause a hospital administrator to increase the nurse-patient ratio in a critical care unit from 1:1 to 1:2. In such a case, the physician director of the unit might encourage unit nurses to unionize in order to negotiate improved staffing ratios. The change from nonunionized to unionized nursing staff would require extensive retraining of nurse managers at all levels. To ensure maximum reimbursement from Medicare and Medicaid, the governing board might pressure the agency administrator to implement a hastily planned quality-improvement program. If hurried implementation resulted in low-quality scores, the agency's physicians and nurses might react to quality monitoring reports with defensiveness and buck passing, rather than effective problem solving. The potential for rivalry, misunderstanding, and hostility between agency administrator, physicians, and nurses exists in every health care agency, but these antagonisms are often intensified by continuing pressure for cost containment and quality improvement.

The nurse administrator should investigate the occupational background and special interests of each governing board member before asking board approval for major change in nursing operations. On a politically constituted board, an upper-class, suburban member might more readily support the implementation of primary nursing in a tax-supported hospital if told that research has shown that primary nursing is less costly than team nursing in some settings. An Hispanic board member from an inner-city neighborhood might more readily support a career ladder program for nurse aides if told that tutorial assistance will be provided to educationally disadvantaged bilingual employees.

AGENCY ADMINISTRATIVE PERSONNEL

All nurse managers, from top executive to first-line supervisor, should have a speaking acquaintance with the agency's chief administra-

tor, medical director, and directors of major service departments. Each nurse manager should feel comfortable in initiating contact with these individuals and conversing on matters of mutual interest. Knowing the agency's administrator includes awareness of the administrator's educational and employment background. A manager should enquire whether the agency administrator has relatives who are nurses, whether the administrator hired the present nurse executive, and the nature of the administrator's relationships with past and present nurse directors. This information helps to clarify whether the administrator is likely to understand and support nursing goals, or needs detailed briefing about nursing operations. The following would be useful information about the chief nurse executive: clinical nursing specialty, patient care philosophy, management philosophy, leadership style. This information may indicate which nursing division will receive most sympathetic attention and which leadership activities nurse managers will be rewarded for. It may be difficult to convince a nurse executive with geriatric nursing background that a 1:1 nurse-patient ratio is needed in a cardiothoracic intensive care unit. An executive with teaching experience in a baccalaureate nursing program would likely be sympathetic to an in-service instructor's request for two hours of preparation time for each hour of formal classroom teaching.

To appreciate the agency's role in the community, the manager should view the organization as an open system that consists of interacting goals, structure, people, and technology. Goals develop from organizational mission and provide the basis for annual performance objectives. Organization structure includes formal and informal networks of authority, responsibility, and communication. The people involved in agency operations include governing board, administrators, employees, and clients. Organizational technology includes physical devices used to perform work, problem-solving skills of employees, and the policies and procedures that control work.

Most agencies publish a formal organizational diagram, in which the lines on the diagram define official communication channels. As an organization increases in complexity and its work force becomes specialized, authority relationships are more defined by negotiation than by bureaucratic hierarchy. Organizations characterized by routine technology have a formalized, highly centralized structure; organizations characterized by nonroutine technology have a flexible, decentralized structure. Since World War II, health science technology has grown exceedingly complex, and the health field has become highly professionalized. Consequently, health agencies evolved from rigidly centralized bureaucracies to free-form, rapidly changing "ad hoc" organizations.

A nurse manager can determine whether decision authority is centralized or decentralized by noting the hierarchical level where hiring, firing, and spending approval occurs. The manager can ascertain the degree of organizational formality by counting the rules manuals that are distributed to employees and noting the specificity of agency regulations. The degree of work force stratification can be assessed by counting the number of job levels between top executive and entry-level positions in the nursing department. The level of status consciousness is shown by the frequency with which professional and academic titles are used in introducing and addressing employees at top, middle, and lower hierarchical levels.

The depth and breadth of organization structure are related to work force professionalization and complexity of work assignments. Experts claim that a manager can exert a wide span of control (10–20 workers) when subordinates perform similar, routine tasks and there is little employee interdependence. When subordinates are responsible for complex tasks, work procedures are uncertain, and workers must cooperate with one another, a manager can supervise fewer workers (perhaps 5) (Fig. 1–4). A newcomer can gauge the complexity of first-line supervisors' positions (head nurses, clinical co-

Broad Span of Control Possible when Supervising Auxiliary or Technical Employees
Performing Routine Tasks

Narrow Span of Control when Supervising Professional Workers
Performing Numerous Interdependent Activities

Figure 1-4 The supervisor's span of control.

ordinators) by the number of first-line supervisors who report to a middle manager. Sometimes, 4 or 5 intensive care head nurses report to a single middle manager, whereas 10 to 12 medical, surgical, or pediatric head nurses report to a single middle manager in the same agency.

Another feature of agency functioning is the point in organizational hierarchy where management decisions are made. Ideally, management decisions with major and long-range consequences should be made at or above a crossover point: the point at which one manager has authority over two branching lines of workers. Lateral decision making below a crossover point in a formal bureaucracy may run counter to long-range organizational goals and resource availability. However, in an informal, decentralized, research organization, where it would be difficult for all workers to follow standardized procedures, management decisions should be made by those most familiar with the problems, so lateral decision making among team members is desirable.

A large staff organization increases organizational breadth. Every nursing line manager should be familiar with all nurse staff specialists and the responsibilities and authority of each. Some staff personnel are advisory, and others have control authority within their own area of expertise. The in-service director cannot force staff nurses to attend in-service classes, if only

advisory, however great the nurses' need for updating. A director of Nursing Policy and Procedure with control authority can order an unwilling head nurse to implement procedural changes when these are prescribed by accreditation or licensing bodies.

Staff positions should be viewed as contact points between agency insiders and influential external groups. Generally, line workers are too busy meeting deadlines to keep up-to-date about community needs, governmental pressures, and economic changes. Therefore, it is common for the top nurse executive to appoint staff specialists to follow up on such matters. The director of Nursing Policy and Procedures might be responsible for tracking regulations of the Joint Commission on Accreditation of Healthcare Organizations and the state health department that pertain to nursing. The director of Nursing Quality Improvement might be responsible for informing nursing managers about court decisions and research findings that pertain to nursing practices. The Nursing In-service director might be responsible for maintaining a data bank about funding sources for training and research, as well as curricula, tuition, and admission requirements for academic nursing programs in nearby colleges. The nurse recruiter might be responsible for providing managers with U.S. Department of Labor reports about the nation's nursing labor pool, average pay rates for nurses, and results of recent labor con-

tract negotiations. A new manager should interview each nursing staff specialist to determine what type of information and service is provided by each, because the division of labor among staff specialists is often more tacit than formal.

LEADERSHIP STYLE

As a leadership specialist, each nurse manager should study the behavior of other agency managers to locate a role model or mentor who can support the new manager's career development. In searching for a role model, a new manager should be aware that inconsistency in approach does not indicate leadership incompetence. Skilled leaders adjust their approach to suit the complexity of the group's task, workers' knowledge and skill levels, and peculiarities of organizational structure. For example, an effective manager is apt to become less directive and more consultative following a change from team to primary nursing or a shift from a mixed professional/nonprofessional to an all RN staff. During rapid organizational changes, managers may lag in adjusting control and communication techniques to the agency's changed character, with the result that an individual's leadership style may be temporarily out of phase with needs of the work group.

It is possible to design a formal organizational structure so as to link individuals, divisions, and staff officers into supportive relationships. However, key organizational principles should be honored when changing organization structure to fit changes in agency purpose or programs. A too-broad supervisory span of control in a complex operation will undermine quality-improvement efforts. Investing staff officers with wide authority over direct-line employees will weaken control by line managers and confuse employees. Too rapid movement of clinical specialists among temporary project teams will decrease the syntality of primary work groups.

Many leadership problems result from faulty organizational structure, rather than manage-

rial ineptitude. A new manager should ferret out those structural features of the health agency that diminish managerial influence and impair employee productivity and lobby administrators to correct such structural problems. According to some experts, it is easier to improve agency functioning by modifying goals or changing structure than by changing personnel behavior through coaching, counseling, and disciplining.

LICENSING AND ACCREDITATION

Licensing

In exploring her or his work situation, the new nurse manager should study the state's nurse practice act, the medical practice act, and the hospital, nursing home, or other agency licensing act.

Licensing of nursing

Licensure is the process by which an agency of state government grants permission for an accountable individual to engage in the practice of nursing and prohibits others from legally doing so. The nursing license is initially bestowed only on presentation of evidence that the individual is competent to practice. Registration is the process by which a qualified individual is listed on an official roster maintained by a government agency. Registration enables an individual to use a particular title and documents that minimum qualifications have been met and maintained.

A state's nurse licensure law defines nursing, describes the scope of nursing practice, indicates the requirements for licensure, specifies exceptions to licensure, indicates grounds for license revocation, creates a licensure board, and describes penalties for practicing without a license. In most states, nursing licensure is mandatory, with the exception that a physician is generally permitted to delegate specific patient care functions to any individual whom he deems appropriate. Most nursing licensure laws indicate that the license may be revoked when the practi-

ner's ability is unpaired as a result of alcohol or drug abuse, unprofessional conduct, immoral acts, incompetent practice, or crime.

Many states have made some type of legal adjustment to provide for the expanded role of the nurse. States have modeled their definition of nursing on definitions proposed by the American Nurses' Association (ANA). The ANA definition has changed over time, for example:

The term "practice of professional nursing" means the performance, for compensation, of any acts in the observation, care, and counsel of the ill, injured, or infirm or in the maintenance of health or prevention of illness of others, or in the supervision and teaching of other personnel, or the administration of medications and treatments as prescribed by a licensed physician or licensed dentist; requiring substantial specialized judgment and skill and based on knowledge and application of the principles of biological, physical, and social science. The foregoing shall not be deemed to include acts of diagnosis or prescription of therapeutic or corrective measures (Hall, 1975).

The last sentence of this early definition effectively outlawed many of the functions that had been delegated to nurse practitioners. Consequently, the ANA later modified the legal definition of nursing to permit expanded practice:

Professional nursing practice encompasses the full scope of nursing practice and includes all its specialties and consists of application of nursing theory to the development, implementation, and evaluation of plans of nursing care for individuals, families, and communities. Professional nursing practice requires substantial knowledge of nursing theory and related scientific, behavioral, and humanistic disciplines. Professional nursing practice includes, but is not limited to:

1. Assessment, diagnosis, planning, intervention, and evaluation of human responses to health or illness,
2. Provision of direct nursing care to individuals to restore optimum function or to achieve a dignified death,
3. Procurement, coordination, and management of essential client resources,

4. Provision of health counseling and education,
5. Establishment of standards of practice for nursing care in all settings, including the development of nursing policies, procedures, and protocols for a specific setting,
6. Direction of nursing practice, including delegation to those practicing technical nursing,
7. Supervision of those who assist in the practice of nursing,
8. Collaboration with other independently licensed health care professionals in case finding and the clinical management and execution of intervention as identified to be appropriate in a plan of care, and
9. Administration of medication and treatments as prescribed by those professionals qualified to prescribe under the provision of [cite state statute(s)] (American Nurses' Association, 1991).

In recent years several states have amended their statutes to permit nurses to diagnose and treat certain health problems (often under a physician's supervision, in accord with standardized protocols, or under emergency conditions). There is considerable difference among the states in their manner of authorizing advanced practice for nurse practitioners. In some states nurse practitioners are regulated by the Board of Nursing through specific regulations; in other states some nurse practitioner functions are regulated by the Board of Nursing, some by the Board of Medicine, and others by the Board of Pharmacy (American Nurses' Credentialing Center, 1989). The *Nurse Practitioner* journal annually publishes a summary of current legislative information about advanced nursing practice in all 50 states. To obtain additional information about the functions that professional nurses may and may not perform in a given state, a manager should scrutinize the state's medical practice act as well as the nurse practice act. Some medical practice acts contain language that specifically prohibits diagnosis and prescribing by nurses. Others contain language that permits nurses to administer drugs that have been ordered by a physician's assistant.

Licensing of hospitals

The health department in each state is responsible for licensing hospitals, nursing homes, and other health agencies. Although the particulars of health agency licensing acts vary from state to state, it is customary for such acts to include criteria governing the types, numbers, and educational preparation of required nursing personnel. Each nurse manager should be familiar with licensing criteria governing personnel and technical issues in her or his area of responsibility in order to negotiate with agency administrators for the resources needed to bring the manager's clinical area into conformity with the licensure law.

Accreditation Criteria for Health Agencies

In addition to agency licensure regulations, the nurse manager should be familiar with the Joint Commission on Accreditation of Healthcare Organizations' (JCAHO) accreditation criteria, as she or he is expected to supervise subordinates to ensure agency accreditation. Accreditation is the process by which a voluntary, nongovernmental agency evaluates an institution or program of study and recognizes it as meeting predetermined criteria or standards. The health agency expects first-level and middle-level nurse managers to bring their operations in accord with industry standards, such as JCAHO criteria for accreditation of a hospital nursing service. Following are examples of two such criteria, together with "required characteristics" for each criterion (Joint Commission on Accreditation of Healthcare Organizations, 1991, pp. 79-82):

Standard NC.1 Patients receive nursing care based on a documented assessment of their needs

Required Characteristics

NC.1.1 Each patient's need for nursing care related to his/her admission is assessed by a registered nurse

NC.1.2 Each patient's assessment includes consideration of biophysical, psychosocial, environmental, self-care, educational, and discharge planning factors

NC.1.3 Each patient's nursing care is based on identified nursing diagnoses and/or patient care needs and patient care standards, and is consistent with the therapies of other disciplines.

Standard NC.3 The nurse executive and other appropriate registered nurses develop hospital-wide patient care programs, policies, and procedures that describe how the nursing care needs of patients or patient populations are assessed, evaluated, and met.

Required Characteristics

NC.3.1 Policies and procedures, based on nursing standards of patient care and standards of nursing practice, describe and guide the nursing care provided.

NC.3.2 Nursing staff members have a defined mechanism for addressing ethical issues in patient care

NC.3.3 Policies and procedures are developed in collaboration with other clinical and administrative groups, when appropriate.

NC.3.4 Policies and procedures describe the mechanism used to assign nursing staff members to meet patient care needs.

SURVEY REPORTS

A new manager might ask to see reports of the agency's most recent surveys by the state health department and the JCAHO. It is customary for these reports to indicate whether the agency has been licensed or accredited by the survey organization and to cite any shortcomings or weaknesses that must be remedied before a given date. Report of a state health department survey might require an increase in nurse staffing ratio for a specific intensive care unit, provision of nursing in-service programs on infection-control methods, modification of the procedure for reporting untoward drug reactions, or change in labeling of intravenous infusion sites.

A JCAHO survey report might recommend that the special care manual for the intensive care unit include policies governing patients' visitors, that electronic cardiac monitoring systems be safety tested at six-month intervals, that monthly fire drills be conducted on each nursing

unit, or that covered containers be used for soiled linen collection. All nurse managers should be informed of health department and JCAHO recommendations for other (nonnursing) departments, as well as those relating to nursing, so managers can cooperate with specialists in other disciplines to implement required change.

After noting areas of weakness that have been identified by state health department or JCAHO surveyors, the manager is expected to lead subordinates in correcting identified problems and monitor ongoing operations to ensure that corrective measures are maintained. If unable to effect needed improvements, the manager can consult agency administrators and staff officers for guidance in eliminating obstacles to care-improvement efforts.

AGENCY CLIENTELE

After the agency's legal standing and accreditation status have been investigated, the nurse manager should determine the nature of the agency's clientele. In some cases sociological studies, governmental surveys, or planning documents will provide demographic information about citizens residing in the agency's catchment area, the geographical territory from which clients are usually drawn.

When health or social need surveys are not available, the manager may obtain information about the agency's past clients in the agency's annual reports, public relations announcements, federal grant requests, or theses of graduate students who use the agency as a practice laboratory.

The manager needs descriptive information about patients to be served in her or his unit or division (socioeconomic level; racial, ethnic, and national background; age and sex distribution), in order to hire personnel with similar values and cultural background to facilitate understanding between patients and staff. If the agency serves a large number of Hispanic patients, the staff should include enough Spanish-speaking nurses to care for these patients and

translate messages to and from other disciplines. If the agency serves a large number of blacks, black nurses should be strategically assigned to ensure cultural understanding during patient assessment, care planning, and discharge teaching.

Present social conditions discourage patients from forming a permanent attachment to a particular physician or health agency. Americans are highly mobile. With frequent changes of residence, an individual may live near one hospital for a short time and close to a different hospital a year or two later. Americans' tendency toward consumerism causes them to "shop around" for health services. Typically, a patient seeks one aspect of health care from a public health agency (immunizations), another from an outpatient clinic (family planning services), another from a private physician (management of diabetes or hypertension), and another from a hospital emergency room (treatment of burn, laceration, or fracture). A nurse manager should investigate whether the patients being served in her unit receive different aspects of health care from a variety of providers. If so, one caregiver (perhaps a nurse) should coordinate the care a patient receives from multiple sources to prevent overlapping or antagonistic treatments.

AGENCY SERVICES

After the agency's clients have been identified and their geographical origins and cultural needs described, the manager should investigate health services provided in the agency. The manager will need this information to answer questions from patients and families, determine availability of internal consultants, and orient new personnel to agency operations. For example, the manager should investigate whether the agency provides the full gamut of obstetrical care; whether peritoneal or hemodialysis is available; whether burn care, high-risk infant care, and neurosurgical services are available. She or he should discover whether the agency serves as local or regional trauma center; and whether cardiac catheterization, cardiac surgery, vascular surgery, and transplant surgery

are performed. The manager should be prepared to inform clients whether there are programs for family planning and genetic counseling; inpatient or outpatient treatment for substance abuse; inpatient, day, or night psychiatric care; and abortions and ambulatory surgery procedures. Finally, the manager should be able to inform community residents about the health-maintenance programs offered in the agency and the cost of each. To provide adequate staffing, the manager must determine whether the agency has its own CAT scanner, nuclear magnetic resonance (NMR) facility, and high-voltage radiation unit or whether patients needing such measures are transferred to other agencies. Similarly, the managers should know whether nuclear medicine and angiographic procedures are performed in the agency or whether patients are transferred with an accompanying caregiver to an external facility.

Some of the aforementioned information may be acquired by studying the formal organization chart or perusing the clinic schedule, operating room schedule, or annual report to directors. More detailed information about specific services can be obtained by interviewing the director of the appropriate unit. The nurse manager should not wait for a superior to arrange these interviews, because the higher-level manager may not be familiar with all agency services or may not appreciate the relevance of an agency program to the manager's professional interests. Instead, when the new manager's formal orientation has been completed, she or he should conduct a personal exploration of agency services, seeking interviews with those managers who can best describe each program.

A new manager should investigate the agency's commitment to primary care. Several stages of primary care are possible. The first is purely preventive and consists of efforts to preserve the client's existing level of physical and mental health. The second is aimed at preventing illness in individuals at risk, such as women with a family history of breast cancer. The third is aimed at early detection of existing problems,

such as screening programs for diabetes, hypertension, and glaucoma. The fourth consists of treating manifest illness, which is what most health care services focus on. The fifth consists of rehabilitation efforts and aims to minimize or reverse sequelae and restore maximum function. The sixth level of primary care is devoted to maximizing comfort for patients whose illness is so advanced that definitive treatment is not possible.

The manager should determine whether the employer provides all stages of primary health care; whether annual physical examinations, routine blood tests, and chest x rays are performed on all agency employees and patients in outpatient clinics; whether there are standing orders for electrocardiogram and proctoscopy for employees and clinic patients over 40; whether a Papanicolaou smear is performed on adult females admitted to hospital or clinic; whether isoniazid is administered to employees who convert from tuberculin-negative to tuberculin-positive reaction after employment; and whether employees who suffer needle pricks are tested for HIV and Hepatitis B antigen. She or he can observe whether diabetes, hypertension, and glaucoma screening programs are advertised and made available to community members, employees, and clinic patients; whether burn victims, stroke patients, and amputees are referred to physiotherapy for corrective exercises and self-care instruction early in the illness episode; whether patients who undergo laryngectomy and pharyngeal reconstruction are referred to a speech therapist before and after surgery; and whether moribund cancer patients receive hospice or home care.

RECORDS

The nurse manager should also determine the agency's method for documenting care administered by members of each discipline. Are all sections of the patient's medical record, emergency care, outpatient care, and in-hospital care organized into an integrated whole? Is a summary of the patient's previous agency ad-

missions, health problems, diagnostic findings, and treatments available to the patient's primary caregiver on every occasion that the patient is treated in any part of the organization? Is a problem-oriented medical record used by all caregivers? Is part or all of the record computerized?

RESEARCH

The nurse manager should learn whether clinical research is conducted in the agency by medical, nursing, or other professionals; whether research in the agency is funded by federal or private sources and what policies exist to protect the welfare of research subjects; and which interest groups are represented on the committee that approves research projects. He or she can also review the consent form to be signed by research subjects and ask who is responsible for obtaining subjects' signed consent.

Having identified the title of research studies conducted in the agency, the manager might consult the chief investigator for any study that relates to her or his own clinical interests, to learn how the investigator's previous experiences led to interest in the study topic. The investigator is the best source of information about study hypotheses, assumptions, subjects, methods, data-analysis techniques, preliminary findings, study conclusions (if available), and study's relation to other research on the topic. A nurse manager who demonstrates keen interest in a study topic may stimulate the chief investigator to describe the research study in detail to the manager's subordinates. Alternatively, the manager may persuade an investigator to use staff nurses as data collectors, thereby providing beginning research experience for selected members of the unit staff.

EDUCATIONAL PROGRAMS

In addition to understanding the agency's service and research programs, a new nurse manager should become familiar with educational programs offered in the agency. The agency's educational director can provide a list of edu-

cational programs offered in the facility. A large hospital may provide a nursing program, a laboratory technology program, an x-ray technology program, or a respiratory therapy program in conjunction with a local college. A hospital may provide medical residencies in several specialties in conjunction with a local medical school. The agency may serve as clinical practice area for graduate students in social service, nutrition, occupational therapy, physiotherapy, nursing, speech therapy, audiology, or hospital administration.

The manager should meet with the director of each educational program to obtain information about its purpose and history, accreditation status, and relation to the manager's job responsibilities. If students from a program obtain clinical experience in the manager's unit, she or he should determine the types of students to be scheduled, length of student rotation, and educational experiences desired. This information enables a manager to coordinate activities of students and staff and to prevent confusion between the two groups. Familiarity with students' educational objectives will enable the manager and staff nurses to foster students' education by pointing out significant findings, reinforcing classroom teaching, and correcting improper performance.

A new manager should also discover which community institutions provide academic and continuing education programs for each category of nursing personnel. Telephone calls to the local board of education and to professional nursing organizations will yield information about nearby practical nursing, associate degree, and baccalaureate degree nursing programs for employees who wish further education. A catalog should be obtained from each school to discover which programs can be pursued at night, on weekends, and on a part-time basis, and this information should be made available to staff members whose personal or family circumstances prevent full-time school attendance. The state nurses' organization or state department of nurse registration and ed-

ucation often accredit nonacademic, continuing education programs for nurses. Therefore, either of these bodies can provide a calendar of upcoming continuing education offerings.

SALARIES AND FRINGE BENEFITS

In exploring factors that affect employee welfare, the manager should investigate the salary and benefit package. Salary scales for each worker classification should be compared with salaries for the same workers in other agencies. The manager can determine how salaries of entry-level and experienced nurses compare with those in nearby hospitals; how many steps are included in the salary range for each classification; criteria for salary increments; methods used to evaluate employees; opportunities for lateral advancement of nurses who wish to remain at the bedside; degree of overlap between adjacent salary grades; differential pay for afternoon, night, weekend, and holiday work; and overtime pay rate.

Pensions, sick pay, and disability pay influence employee recruitment, retention, and morale. Consequently, the new manager should investigate the agency's pension plan; the amount of employee contribution and employer contribution; at which level a worker becomes a vested plan member; the assignment of employee's and employer's contribution if an employee resigns before retirement age; the point where employee cannot withdraw pension contributions; Social Security benefits; pension rights transferability; and worker eligibility for disability benefits.

Not-for-profit hospitals are exempted from coverage under Social Security legislation, unless the organization elects to be covered. A nurse manager whose organization is without Social Security coverage might investigate why the organization has not sought such coverage. The Social Security benefit formula is favorable to employees with low wages, and ancillary health workers are poorly paid. To advise patients and subordinates who need financial assistance, a manager must understand the two types of Social Security benefits. Social Security

insurance is based on the worker's prior payments and provides benefits for unemployment, retirement, old age, disability, illness, and death of the family wage earner. Social Security assistance does not require previous contributions and consists of tax-supported payments to the aged, blind, totally disabled, and dependent children whose breadwinner is unemployed or disabled.

In addition to Social Security benefits, there are state assistance programs that provide some aid to persons who do not qualify for any of the combined federal-state assistance programs. The state welfare department will provide brochures to describe these programs.

POWER STRUCTURE

To collaborate with superiors, peers, and subordinates, a new manager must understand the agency's power structure. Power is the capacity of one individual to control the activities of another. The agency's formal organization diagram will reveal the agency's official power brokers. By constructing a sociogram in every committee meeting and informal discussion group attended during the first three months of employment, a manager can identify leaders of the agency's informal organization. Often, these are not the same persons who occupy official power positions.

The formal organizational diagram reveals whether employees are linked by a rigidly structured bureaucracy (tall, narrow pyramid) or loosely structured adhocracy (broad, flat structure). In the former, legitimate power is concentrated in the hands of a few top-level administrators. In the latter, power of other types—positional, expertise, personal—is distributed throughout the organization and shifts from one person to another.

As scientific knowledge accumulates, it becomes difficult to invest power in an elite few, because it is impossible to break a complex undertaking into simple operations that can be distributed among different worker categories. The nurse manager can identify the power of specialists who are scattered throughout the

agency, predict the consequences of interactions with coworkers, and use this information to muster support for later management projects.

It is important for a manager to assess the amount and limit of her or his organizational power, because, paradoxically, power can both incite and resolve conflict. The appearance of possessing power invariably incites others to challenge the individual's right to that power. An individual who occupies a power position should expect attacks by coworkers because of resentment of that control by the power holder or the desire to wrest power from the leader. Despite challenges to power holders, the positional and personal power of a chief executive is often sufficient to settle conflict among subordinates.

In a rigid bureaucracy, power may seem restricted to one or two top administrators, but there are methods by which lower-level employees resist unfair domination by superiors. The new manager should look for evidence of the following: delaying tactics ("I'll do as you say, but in my own good time"), smoke screen (much talk and activity to conceal the fact that workers are accomplishing little of value), sabotage (administrative orders are executed, but in a manner that defeats the activity's objective), backfire (the directive is implemented in a manner that induces errors, injuries, breakdowns, or losses), and withdrawal (employees acquiesce to the executive's power tactics for as long as they can stand it, then resign abruptly, leaving orders unfulfilled).

A new manager can diagnose misuse of power by noting frequency of win-lose conflicts between superiors and subordinates. Where superiors use positional power to force decisions on subordinates, manager-employee relations become polarized, workers reject all management goals, and managers ignore all worker's objections.

STAFFING

After studying the formal organization diagram for the total nursing department and for each division, the new manager should discover

the number of positions budgeted in each worker classification for her or his areas of responsibility and the number of vacant positions. The budget will show which job titles are listed for the total agency, the nursing department, and various nursing divisions. For example, 240 occupational titles have been listed for hospital employees. The number of job titles in a health agency is a measure of organizational complexity.

Job Descriptions

It is advisable for a new manager to read the job description for each job title in her or his area. Behaviors specified in a job description indicate desired employee role. Role is the assigned or assumed character of an individual. In a rigid bureaucracy, the role of each employee classification is well defined and unchanging. In a freely structured adhocracy, roles continuously emerge and change through negotiation, specialization, and competition.

Role Portrayal

After the manager has identified the individuals in leadership, follower, instigator, coordinator, problem solver, conciliator, protector, advocate, and other key roles, she or he can observe how different individuals express the same role. Vice-presidents of nursing can personalize leadership role expression through variations in facial expression, gestures, dress, tone of voice, choice of words, and use of props. Some female vice-presidents of nursing adopt the conservative blue-gray-brown business attire of male peers, some garb themselves in the latest feminine fashions, others wear a uniform or laboratory coat. Some administrators adopt a perpetual smile to demonstrate good nature, sociability, or approachability. Some never smile, to emphasize the seriousness of their responsibilities. Some wear a perpetual scowl, to fend off would-be supplicants or questioners. Expansive gestures may be used to emphasize scope of power, breadth of understanding, or extent of concern for clients and subordinates. Some administrators shake their fingers, pound

the table, and shake their heads to demonstrate indignation, decisiveness, and determination. Some use coquetry to obtain concessions in a sexually charged environment.

Some administrators adopt a loud, angry, or preemptory tone of voice to intimidate persons who might question their opinions or authority. Others speak in a half whisper, to force listeners to hang on their every utterance. Some speak in clipped, staccato fashion to project an image of self-confidence and indicate they are too busy to be bothered with trifles. Others express themselves in halting, self-deprecating, doubtful fashion, to conceal status differences with subordinates or highlight status differences with superiors. Some pontificate on every subject, however trivial, to demonstrate superior erudition and dedication. Others lubricate discussion of even weighty matters with a continuous stream of jokes, quips, and puns, to lighten the work burden and speed time.

The props used by a power broker yield clues to personality and leadership style. Some administrators cover their office walls with framed diplomas and special awards. Some surround themselves with row after row of weighty books and monographs, with their own publications prominently displayed. Some cover their desks with photographs of dogs and family members. Some emblazon their walls with religious quotations, homilies, or self-improvement mottoes. Some hide behind a desk piled high with letters, directives, and reports. Some enthrone themselves on a slightly raised dais behind a massive, bare desk. Some keep a settee, lounge chairs, and coffee table in a corner of the office to conduct business in a relaxed fashion with selected coworkers. Some are never without a clipboard or yellow legal tablet, on which they take copious notes about every issue. Some consult a pocket calendar at intervals, to remind themselves of numerous important events requiring their presence. Some glance frequently at a lavaliere watch throughout meetings to demonstrate they are too busy to remain throughout the scheduled time. Some use a cigarette or pen-

cil to punctuate assertive pronouncements. Some are rarely without a coffee cup in hand. Some wear a stethoscope draped around the neck. Some carry a pocket calculator and whisk it out at the slightest excuse to compute vacancy rates, turnover rates, salary increments, nurse-patient ratios, and the like.

Differentiation and Specification

One measure of job specificity is the number of criteria that outline job responsibilities. The duties of a staff nurse might be summarized as follows: Provides direct care to assigned patient case load. Assesses each patient's condition and needs on admission, constructs individualized plan for care, executes plan herself or himself or negotiates with others to do so; evaluates and adjusts care plan in accord with patient outcomes. Participates in nursing research and supervision of nursing students as assigned.

In another agency, the duties of a staff nurse might be summarized thus:

Intervenes on behalf of assigned patients through the following care, cure, and coordination activities:

1. Receives information about patient's condition and treatment during walking rounds with off-going nurse at change of shift.
2. Obtains health history and performs physical examination on admitting a patient
3. Uses historical and assessment data to develop nursing diagnoses.
4. Constructs a written nursing care plan that includes long- and short-range goals, phrased as patient outcomes in objective, measurable, behavioral terms.
5. Implements routine care measures and specific nursing interventions prescribed by the nursing care plan, and provides nursing orders to guide associate nurses in achieving patient care objectives.
6. Monitors patient response to treatment and care measures through observation,

interview, examination, and review of chart data

7. Communicates significant information about the patient's condition, treatment, and response to attending physician, head nurse, and associate nurses through chart entries and oral reports.
8. Assists nurse researcher to collect and analyze data as requested.
9. Serves as role model and consultant to nursing students who use the unit as clinical laboratory.
10. Participates in group activities relating to planning, executing, evaluating, and improving nursing care in the unit.

Professional role development does not depend entirely on the job description. Professionals shape their own job roles by demonstrating expertise and creativity and by negotiating agreement with coworkers. In a typical health agency, multiplicity of occupations and job titles predispose to role confusion and conflict. Role conflict is the simultaneous occurrence of dissimilar role definitions, so that compliance with one makes compliance with the other impossible. Role confusion is the uncertainty about the manner in which superiors, peers, and subordinates perceive one's job role.

A person's behavior in a particular setting is fairly consistent through time. Therefore, when the manager has identified a particular employee's role in the agency, she or he can expect that employee to portray the same role until there are major changes in the physical or psychological environment.

Vice-President of Nursing

By assessing the preparation, experience, and philosophy of the vice-president of nursing, a new manager can identify the overall character of nursing leadership. The manager can learn whether the nurse executive has educational preparation for administration; whether she participates in executive-level policymaking; and whether her salary matches that of non-

nursing administrators with equivalent responsibility. This information indicates the amount of respect accorded nurses and nursing by agency governors.

Expansion of the Nursing Role

In assessing the work force, a new manager should search for job titles that reflect expanded nurse roles. If nurse practitioners or nurse associates are employed, it is important to note their educational preparation, whether they are responsible for both inpatient and outpatient care, and whether they are supervised by nurses or physicians. It would be wise to assess the quality of relations between nurse practitioners and staff nurses, so as to understand any misunderstandings between the two. Both manager and staff nurses must know which of the nurse practitioner's written orders must be countersigned by a physician and when staff nurses are to implement a nurse practitioner's order before it is countersigned.

There may be blurring of roles for nurses and social workers on the same unit. The manager should ask for guidelines to clarify responsibilities of both disciplines in preparing patient and family for discharge. If guidelines are not available as policy statements, they may be available in minutes of meetings of the multidisciplinary team.

Unit-Management System

In some agencies, the manager of each unit is a nonnurse representative of hospital administration. In other agencies, a head nurse or nurse coordinator is manager of the nursing unit, and a secretary or clerk is responsible to the nurse manager for recordkeeping, communication, and environmental management. The purpose of the unit manager system (nonnurse manager of the patient care unit) is to relieve professional nurses of nonnursing functions and extend agency administration influence into the unit level. Therefore, the head nurse job description in an agency with a unit manager system should not include responsibilities for man-

aging clerical, housekeeping, transportation, financial, and quartermaster activities.

Local Labor Pool

To assess the labor pool from which employees are usually recruited, the manager could identify all practical nursing, diploma, associate degree, baccalaureate degree, and graduate-level nursing programs in surrounding communities. By analyzing the educational backgrounds of the current employees, the manager can decide which programs provide most numerous or satisfactory recruits. Periodically, the American Hospital Association publishes information about vacant nursing positions in each metropolitan area, region, and state. This information enables a manager to predict which jobs in her or his area will be most difficult to fill. The U.S. Department of Labor Statistics provides information about the number of employed and unemployed nurses in the country as a whole and in each state. These data reveal the number of potentially employable but currently unemployed nurses in each area. If that number is substantial, the new nurse manager might request the employer to provide refresher courses, part-time employment, or salary increases to attract unemployed nurses to long-vacant positions.

Nursing Staff Profiles

Nursing staff profiles may have been prepared for the total agency or the manager's own division. These profiles reveal percentage distribution of the total staff by sex, age, race, educational preparation, and years of employment. The agency's Affirmative Action plan reports the percentage of employees in each minority group and any long-range plans to modify these percentages, so that the racial composition of staff and community are similar. By comparing the agency's personnel profiles with U.S. Department of Labor's or American Hospital Association's health manpower statistics, the manager can decide whether recruitment

should be redirected to attract additional workers from a particular minority.

Staff Licensure and Certification Status

The manager is responsible for checking the licensure and certification status of each employee, usually, on hiring the employee and annually thereafter. The manager is responsible for checking the license document of each subordinate for whom state licensure is an employment prerequisite and for ensuring that license and issuance numbers are recorded in the employee's personnel record.

Certification is a process by which a non-governmental agency validates a nurse's knowledge and expertise in a specific functional or clinical area of nursing. In 1976 the American Nurses' Association developed a procedure to certify nurses for specialized areas of practice with distinctive eligibility requirements (Kelly, 1977). Currently, the American Nurses' Credentialing Center provides programs for certifying nurse generalists in 10 areas, nurse practitioners in 5 areas, clinical specialists in 5 areas, and nurse administrators at 2 levels (American Nurses' Certification Center, 1992). The new manager can assess the overall quality of the nursing staff by determining what proportion of staff in each specialty are certified.

Staff Development

The new manager should know whether continuing education for nurses is mandated by state law. If so, the manager should discover how many continuing education units or contact hours are required to qualify for relicensure. Whether continuing education for nurses is mandatory or voluntary, there will be agency policies about financing continuing education programs for personnel and allowing nurses to attend educational programs on paid time. Usually, the Staff Development Department maintains a cumulative record of continuing education programs attended by each employee. By reviewing these records, the new manager can

determine the number of educational programs attended by each worker, the topics selected, and the number of programs attended on paid time. This information will indicate the strength of agency and employee commitment to nursing practice improvement.

A new manager will be interested in her own and subordinates' opportunities for personal development. Chief among these is coaching by a senior manager. A beginning manager may be satisfied with lower-than-average salary if promised tutoring by an experienced manager. The neophyte manager who enters into an arrangement of this type should clarify during preemployment what information and skills the mentor will convey, how much of the mentor's time will be available, and what level of performance will result from the mentoring.

COMMUNICATION TECHNIQUES

The success of a health agency's operations depends on prompt and accurate transmission of work-related information among workers. Many health agencies have an automated patient information system or management information system, to decrease uncertainty and increase speed in decision making. Health care workers and managers require both operational and nonoperational information. Operational information is that needed by line managers, such as head nurse or patient care manager, for short-range planning and managing budgets, schedules, assignments, and training. Patient census data, patient classification scores, staff attendance records, and critical incident reports are operational information. Nonoperational information is that needed by top- and middle-level administrators, such as vice-president of nursing and divisional nursing directors, to analyze cost-benefit data, allocate resources, develop goals, and design strategies. Monthly and annual trends in bed utilization, patient length of stay, number of deliveries and surgical operations, employee turnover rate, and employee salaries are nonoperational information.

If the agency has an automated patient information system or management information system, the new manager should learn which members of the medical, nursing, and administrative staffs were responsible for planning the system. Systems designed by potential users are more effective than systems designed by an outside computer expert. If the agency has an automated patient information system, where patient medical records are filed in computer memory and caregivers add information to each file on a real-time basis, the manager will need to know whether the system provides for direct input of physician orders or nurses must input physician's orders. The latter system constitutes additional work for nursing personnel. Documentation policies will indicate which personnel categories may input and extract patient information from the computer, how they were trained to use the system, and what safeguards are installed to ensure confidentiality of sensitive patient information.

Interpersonal Communications

A socially sensitive manager will note the tenor of interpersonal communications between employees at all levels. She can observe whether superior-to-subordinate communications are oral and informal and occur frequently during work or are commonly written and formal. When most communications are conversational, but exchanges between a particular superior-subordinate pair are habitually written, the manager might suspect misunderstanding or dislike between the two.

To decipher the agency's informal communication network, the manager might check voluntary seating arrangements during informal meetings. Close friends, whose conversational interchange is frequent and comfortable, often sit side by side or facing one another across the end of a table. Persons who wish to avoid interchange often sit at opposite ends of the room or arrange their chairs so as to minimize physical and eye contact.

STAFF MORALE

Some experts claim that people's attitudes are shaped as much by their employment setting as by family influences. The manager can detect the effect of organizational structure on employee enthusiasms, values, and hostilities. It is possible to measure whether employee morale is higher under a permissive than an authoritarian manager. It is useful to know whether personnel turnover is less in units where employees are given greater autonomy than in units where protocols and routines are decided by the manager and dictated to employees.

Generally, employee dissatisfaction is greater in organizations with extreme stratification and rigid role structuring. Some role structuring is inevitable in a health agency, because the rights and obligations of each health discipline are specified by state law and professional guidelines. In spite of these regulations, there is leeway for modifying organizational structure and function. A new manager will want to know how recently and why changes were made in the agency's official table of organization. She or he should note how frequently job descriptions are rewritten for each job category and how much benchmark jobs differ from the same jobs five years before.

Level of employee morale may indicate the staff's amenability to planned change. Satisfied, committed employees are generally receptive to proposals for improving patient care services and methods. In investigating staff morale, the manager can explore those issues that cause most anxiety for employees. In some organizations, research responsibilities create anxiety for direct caregivers (perhaps because professional leaders have long emphasized the importance of doctoral preparation for research). In others, the threat of layoffs is an anxiety producer. In some, the drying up of federal grant funds produces panic. In some, pressure to publish or earn a doctorate to qualify for tenure causes security-conscious workers to quake. In others, threat of strikes intimidates employees and managers alike. Knowing the sources of em-

ployee anxiety will help the manager to predict employee behavior, because much activity results from an individual's attempts to relieve tension by conforming to wishes of authority figures.

Low employee morale may result from status differences that block communication between caregivers and managers. In any group, persons with high status express themselves more freely than persons with low status and are generally unaware of their impact on low-status members. In discussions, high-status persons value contributions of other high-status persons more than those of low-status persons. The new manager can easily observe these principles by analyzing contributions of each member to group problem solving.

Another factor that affects employee morale is the amount and quality of work-related information distributed to them. Some administrators and managers withhold information out of the mistaken notion that they are protecting subordinates from needless concern. However, employees have a basic psychological need for clarity and are most comfortable when given as much accurate, unambiguous information about the work as time and circumstances permit.

WORK SCHEDULES

A new manager should note the official change of shift time (7 A.M., 3 P.M. and 11 P.M.; 8 A.M., 4 P.M., and 12 midnight; or 9 A.M. and 5 P.M.) and whether selected personnel are assigned atypical shifts to provide additional coverage during peak periods of activity (10 A.M. to 6 P.M.; 11 A.M. to 7 P.M.; 12 noon to 8 P.M.; 1 P.M. to 9 P.M.). She or he will observe whether any employees work 10- or 12-hour shifts and whether such assignments are optional. If extended shifts have been implemented and abandoned on a particular unit, the manager might ask why they were discontinued. Interest in 10-hour and 12-hour schedules should be more than academic, because compression of the work week can sometimes reduce nursing

care costs by making it possible to concentrate personnel during periods of peak workload.

The manager can investigate whether the agency has a method for predicting patient census changes and adjusting personnel schedules to prevent overstaffing and whether part-time employees are used to staff the agency on holidays, weekends, and evening and night shifts. It will be apparent whether overtime and registry personnel are used to replace absent employees and fill vacant positions. She or he might compute percentage of total positions filled by temporary and part-time workers, because these persons are sometimes less committed and less versatile than regularly assigned personnel. The manager should note whether staffing responsibilities have been decentralized, that is, planned and carried out by personnel at the unit and division level, or centralized, that is, executed by personnel in the central nursing office. Unit personnel may be better satisfied with the former arrangement, but the latter is usually more economical.

PRODUCTIVITY MEASURES

To assess subordinates' effectiveness, the manager needs to identify the productivity measures used in each nursing unit or service. This information is available in budget plans and quarterly accounting reports, which are useful in comparing productivity of various nursing units. The productivity measure for the operating room may be the number of operative cases per month or minutes of operative time per month. For the outpatient department, it is usually the average number of daily or monthly clinic visits. For the postanesthetic recovery unit, it may be the number of patients treated per month or patient-hours of care per month. For a general nursing unit, it may be the average daily census, average number of patient days per month, or average nursing care hours per patient per day. To determine staff productivity, the manager should compare the number of work units accomplished against the number of

paid, full-time equivalent workers employed in the unit for the same period, which will reveal the workload per full time equivalent for the unit in question.

UNION ACTIVITY

To understand and predict employee behavior, a new nurse manager should determine which of the agency's employees are unionized and what provisions are included in each collective bargaining contract. If the manager has no previous experience with employee unions, he or she can ask other agency managers about the history of each union's bargaining activities. The typical pattern of bargaining for each health worker union is to begin with bargaining for wages and then, with each subsequent bargaining cycle, expand to bargaining on the number of employees to be hired, educational or experience requirements for each worker category, and assignments suitable for each worker category. The manager can determine whether any union has conducted a strike or other job action against the agency, when this action occurred, and what circumstances provoked it. It is important to know whether unionized registered nurses abandoned their jobs in sympathy with striking medical house officers, whether practical nurses or nurse aides refused to cross the picket lines of striking registered nurses, and whether clerical personnel, technicians, or maintenance personnel crossed the picket lines of striking professionals.

The manager might ask members of the agency's bargaining team what issues have been pursued most vigorously by nursing unions. By identifying each union's "pet" issues, the manager can predict which situations are likely to provoke hostility between workers and management and forecast possible direction of contract talks during subsequent negotiations with the union.

To prepare for future contract negotiations, the new manager might review grievances submitted by nursing employees within the previous three years. In reading these docu-

ments, the manager should note (1) the issues about which complaints were registered; (2) the number of steps through which most grievances progressed; (3) whether the majority of grievances were decided in favor of labor or management; (4) whether a disproportionate number of grievances were lodged by personnel in any one unit or against any particular supervisor; and (5) the percentage of grievances submitted to arbitration. Knowing the issues underlying most grievances, the manager can predict the union's future contract demands. If unionized nurses have submitted numerous grievances alleging unfair assignment of evening, night, weekend, or holiday duty, the union will probably request language in the next contract to provide premium pay for undesirable time schedules. If numerous grievances have alleged unfair rotation of nurses from their regularly assigned unit to cover an understaffed unit, the union will probably attempt to limit such reassignments in subsequent contract provisions. By identifying the supervisors or nursing units associated with most numerous grievances, the manager can identify coaching needs of selected staff members.

While investigating the unions currently representing agency employees, the manager could check out other unions that have attempted to organize health workers in the community. He or she can learn whether the Federation of Nurses and Health Professionals (a division of the American Federation of Teachers) or the 1100 League of Registered Nurses has attempted to organize nurses. The manager should also ask whether the American Federation of State, County, and Municipal Employees, or Union No. 46 of the Congress of Industrial Organizations have attempted to organize nonprofessional health workers in nearby agencies and determine whether there has been any change in the state nurses' association's stand on collective bargaining responsibility. Some state nursing organizations have discontinued their collective bargaining activities.

LITIGATION

Finally, to assess the quality of agency relationships with patients and employees, a new manager should investigate past and present litigation against the organization by clients and staff. Usually, the agency's monthly and annual reports will list past and current legal claims against the agency and any monetary awards made to claimants. Minutes of the agency's Risk Management Committee also contain useful information on the same topic. If these documents are not available to the manager, she or he should ask the agency's legal officer to provide information about claims by previous litigants, so the manager can eliminate these problems in her or his own area of responsibility. If patients and families have sued the agency for damages resulting from equipment defects, personnel errors, or inadequate supervision of students, the manager should identify problems in these areas and instruct and supervise subordinates accordingly. If employees have sued the agency for damages due to sexual, racial, or age discrimination, the manager should scrutinize methods of hiring and promoting to ensure that he or she does not contribute in any way to unfair employment practices.

MEMO CAPSULE

Agency Assessment

- Foundation: Values, culture, history
- Operations: Staff, programs, clients
- Development: Research, education, systems
- Challenges: Financial, staffing, marketing

SUMMARY

This chapter offers an overview of management information that will be discussed in detail in chapters to follow and highlights topics of principal interest to a new nurse manager.

MEMO CAPSULE

Documentary Nursing Management Information

- Annual reports of agency's board of directors for past five years
- Newspaper articles about agency programs, events, personnel
- Public relations brochures used to market agency services
- Reports of surveys by accrediting and licensing bodies
- Past and present budget documents
- Past and present labor contracts
- Previous employee grievances; fact finders' and arbitrators' reports
- Past annual reports of chief executive officer, chief financial officer, chief nurse executive, divisional nursing directors
- Reports of results of litigation by agency patients and employees

RESEARCH BRIEF

Nursing Practice Research

Purpose: Analyze focus, theoretical basis, design, statistical method, and findings of nursing practice research, 1977–1986.

Sample: 720 articles on nursing practice research published in *Nursing Research*, *Research in Nursing and Health*, *International Journal of Nursing Studies*, *Journal of Advanced Nursing*, *Heart and Lung*, and *Western Journal of Nursing Research*

Method: Investigators reviewed journals' table of contents to identify articles on nursing practice research. A 52-item checklist was used to check each for (1) key study characteristics; (2) purpose and theoretical basis; (3) research problem in relation to North American Nursing Diagnosis Association (NANDA) categories; (4) design; (5) method; (6) outcomes.

Findings: Sixty-four percent of studies were focused on assessment; 36 percent were focused on intervention. Fifty percent of studies provided only purpose or aim; 31 percent presented research hypotheses; 16 percent presented research questions, and three percent did not spec-

ify purpose, research question, or hypothesis. Forty-nine percent of studies had no theoretical perspective, and only 3 percent tested theoretical concepts or hypotheses. Fifty-two percent of studies used theory from another discipline. The most frequently used psychological theories were coping theory, health belief model, and locus of control theory. Of NANDA categories, more studies related to knowledge deficiency, coping, and anxiety than other diagnoses. Most common design was cross-sectional. Convenience sampling was used in 74 percent of studies. Bivariate statistics were used in 41 percent, and multivariate statistics in 35 percent of studies. Eighty percent reported statistically significant results. Common shortcomings were insufficient sample size and failure to use non-parametric statistics appropriately.

Application: Results show that nurses should be encouraged to engage in theory testing and theory building. Each study should build on previous research, in order to build a sound scientific basis for practice.

Source: Moody, L., Wilson, M., Smith, A., Schwartz, R., Little, M., & van Dine, M. Assessment, knowledge, and intervention in nursing practice research, 1977–1986. *Nursing Research* 37(6): 374–379, 1988.

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II

PLANNING

Management Theory

Truth is a gem that is found at a great depth.

GEORGE NOEL GORDON LORD BYRON

OBJECTIVES

After reading this chapter, you should be able to:

1. Enumerate two engineering methods developed by Frederick Taylor that have been used to improve productivity of nursing personnel.
2. Identify characteristics of your health agency that match characteristics of a bureaucracy, as described by Max Weber.
3. Describe the research finding of Mayo and Roethlisberger that provided the basis for the humanistic school of management.
4. Relate McGregor's Theory Y of leadership to the philosophy of participative management.
5. Discuss differences in decisional style of Herbert Simon's "Administrative Man" and "Economic Man."
6. Describe symptoms of "future shock" that you have observed in coworkers.
7. Describe typical behaviors of a nurse manager in portraying the following leadership roles identified by Henry Mintzberg:
 - a. Figurehead
 - b. Leader
 - c. Liaison
 - d. Monitor
 - e. Disseminator
 - f. Spokesperson
 - g. Entrepreneur
 - h. Disturbance handler
 - i. Resource allocator
 - j. Negotiator

Both scholars and practitioners have contributed to current management theory. A systematized theory of management did not develop until the late nineteenth century, but people have wrestled with problems of organizing and directing workers for centuries.

HISTORICAL BACKGROUND

The architectural accomplishments of ancient Egypt, Greece, and Rome documented the management skills of pre-Christian architects. Widespread expansion of the Roman Empire revealed the organizing genius of Roman mili-

tary leaders. The Catholic church's domination of secular and spiritual affairs during the Dark Ages demonstrated the managerial skills of medieval churchmen. After the crusades stimulated international trade, towns were built along new trade routes, and centralized governments developed to regulate trade.

Scientific discoveries of the seventeenth century provided the basis for the Industrial Revolution of the eighteenth century. The change from hand power to machine power moved production of manufactured goods from workers' homes to factories, where machines and energy resources could be concentrated. Factory owners and managers learned to increase productivity and profit through division of labor and task specialization. When a factory or business became too large for the owner to direct all aspects of production, he appointed assistant managers and delegated selected management responsibilities to them, while retaining final authority for planning, policymaking, and control.

SCHOLARS AND THEORISTS

Frederick Taylor

During the nineteenth century American factory growth was stimulated by technological advances and an influx of immigrants, who created an expanding market for manufactured goods. However, the American frontier spurred a spirit of individualism that prevented efficient factory operations (Scott, 1967). Frederick Winslow Taylor (1856–1915) developed his theory of scientific management to increase efficiency of industrial production methods.

Taylor, a mechanical engineer, was born in Pennsylvania, educated at Stevens Institute of Technology, worked as an engineer in a steel company and a paper mill, invented several industrial tools, and conducted research on methods of training workers for increased productivity. Taylor advocated that work be studied scientifically to determine the "one best way" to perform each task, that is, the method of task performance that would yield maximum work output for minimum energy input by the

MEMO CAPSULE

Theorists and Concepts

- Frederick Taylor: Time and motion study, functional foreman.
- Henry Fayol: Division of work; task specialization
- Max Weber: Bureaucratic structure is ideal for large organizations.
- Mary Follet: Take orders from the situation.
- Elton Mayo and Fritz Roethlisberger: Peer influence sets work norms.
- Kurt Lewin: Workplace climate determines worker behavior.
- Douglas McGregor: When supported, workers take responsibility.
- Chris Argyris: Bureaucratic structure blocks maturation
- Rensis Likert: Trust, communication facilitate effectiveness.
- Herbert Simon: Completely rational decision making is impossible
- Alvin Toffler: Workers are disoriented by too rapid change.
- Henry Mintzberg: Manager's actions: brief, varied, interrupted.

worker. Taylor said that scientific management required a mental revolution by both managers and workers. He believed that managers were chiefly interested in maximizing financial profits and workers were chiefly interested in maximizing pay, that scientific management would stimulate both to increase productivity, and profits would increase to the point that managers and workers would no longer quarrel over division of spoils.

Taylor's system for work improvement consisted of the following steps:

1. Observing the worker's performance through time and motion study to determine the one best way to carry out each task.
2. Scientifically selecting the best worker to

perform each job, that is, the person with characteristics and abilities needed to carry out job tasks in the most efficient manner.

3. Training the selected worker to perform tasks in the most efficient manner.
4. Paying the worker a differential piece rate, to motivate him or her to perform the task in prescribed, efficient fashion.
5. Appointing a few highly skilled workers to managerial positions and giving each manager responsibility for planning tasks for subordinate workers.
6. Appointing a foreman for each aspect of the work and instructing the production worker to report to a different functional foreman for each aspect of the job.

Using time study and training, Taylor (1911/1960) increased the work output of selected employees, but he overestimated workers' interest in wages. Organized labor decried the Scientific Management theory, because they were convinced that its methods benefited owners more than workers.

Henri Fayol

Henri Fayol (1841–1925) was born in France, educated as an engineer at the National School of Mines, and employed as mining engineer and then as general manager of a coal and steel company. His experience led him to develop the following management principles:

1. There should be such a division of work and task specialization that different workers consistently carry out different job responsibilities.
2. Each worker should be given authority commensurate with the amount of his responsibility.
3. Each employee should receive orders from only one superior.
4. One person should direct all activities that support a single objective.
5. The interests of the individual worker

should be subordinated to interests of the total work group

6. There should be an unbroken scalar chain of authority extending from the top executive to the lowest-level worker.
7. All employees should be treated with equity and justice.
8. Managers should help workers to develop teamwork and esprit de corps (Fayol, 1949).

Fayol recognized the tentative and flexible nature of these principles, stressing that effective management results from basing each action on the appropriate principle.

Max Weber

Max Weber (1864–1920) was a German intellectual with no managerial experience who studied at the University of Heidelberg, taught Law at the University of Berlin and Economics at Freiberg University, then studied politics, sociology, and economics as a private scholar. Weber's major work, *Theory of Social and Economic Organization*, was published in Germany in 1921. After its 1947 publication in this country, it had a major impact on American management.

Weber advocated bureaucracy as the ideal form of organization for a complex institution. He described a bureaucracy as having a well-defined hierarchy of authority, division of work based on specialization, highly specific rules governing workers' duties and rights, detailed work procedures, impersonal interpersonal relationships, and promotion based on technical competence.

Weber claimed that bureaucracy was superior to other forms of organization, because it provides greater stability, precision, and reliability in controlling employees (Weber, 1949). Interestingly, "bureaucracy," which Weber considered highly efficient in dealing with changing circumstances, is seen as too rigid and ponderous to respond to today's rapid societal change.

Mary Follett

Mary Parker Follett (1869–1933) was an American who studied government and business administration at Radcliffe and abroad. She viewed management as a social process aimed at motivating individuals and groups to work toward a common end. She advised managers to avoid arbitrary authority and said that successful leadership more often results from training in leadership skills than possessing specific personality traits. Follett said that researchers should analyze managers' jobs in the same way that Taylor analyzed laborers' jobs, so that executives could be taught effective management skills and allowed to practice the new skills under supervision until they became habitual. In discussing the concept of authority, Follett advised that a manager should never give orders to an employee. Instead, manager and employee should analyze the situation together, then both should take orders from the situation (Follett, 1924).

Elton Mayo and Fritz Roethlisberger

Between 1927 and 1933 Elton Mayo and Fritz Roethlisberger conducted studies at Chicago's Hawthorne Western Electric plant to test several assumptions of Scientific Management theory (Homans, 1941). The purpose of the first study was to determine relationships between intensity of illumination and worker productivity. When researchers increased the level of illumination of the experimental group, work output increased, as expected. However, when illumination was decreased, output continued to increase. The researchers concluded that an unidentified psychological factor had influenced work output.

In order to study the effect of other factors on work output (number and length of rest periods, length of work day, and method of employee payment), investigators isolated six women telephone relay assemblers in a separate room where productivity was measured while working conditions were altered in one way after another. The first experiment indicated that

some factors other than physical working conditions determined work output volume. Therefore, an observer was placed in the test room to log hour-by-hour events, workers were given a medical examination every six weeks, and workers were interviewed daily about their food intake and hours of sleep. After a series of experiments, in which various changes were made in environmental conditions, researchers concluded there was no simple correlation between quality of work environment and quantity of work output. Indeed, work output in each experimental period was higher than the preceding period, whether the environmental variable (light, rest, refreshment) was increased or decreased.

Interviews revealed that study subjects liked working in the test room better than working on the regular factory floor. The test room observer allowed workers to socialize while working, workers met regularly with the factory superintendent for explanations of forthcoming experimental changes, and workers established friendships with coworkers that carried over into their personal lives.

In a later experiment, fourteen male workers were observed while working in a bank wiring room, to analyze their group dynamics. It was noted that the work group established production quotas and behavior norms that conflicted with those established by management. Mayo and Roethlisberger concluded that factors other than environmental conditions have greatest influence on worker productivity. Support from peers, work group norms, participative decision making, and recognition from administrators increase productivity by enhancing workers' social and psychological satisfactions (Roethlisberger and Dickson, 1956).

Kurt Lewin

Kurt Lewin, a social psychologist, developed the Field Theory of human behavior (Lewin, 1951). Lewin claimed that a worker's on-the-job behavior is influenced by interactions between worker personality, work group struc-

ture, and sociotechnical climate of the workplace. On the basis of his research, Lewin concluded that the process of behavior change occurs in three phases:

1. **Unfreezing:** When an alteration in social and psychological forces is perceived, an individual's equilibrium is disturbed, facilitating attitudinal and behavior change. When thus imbalanced, an individual can be motivated to alter behavior, either by increasing pressure to make the change or reducing threats associated with the change.
2. **Changing:** The individual demonstrates the desired attitudes and behavior either by mimicking behavior of a role model who portrays those behaviors or by "discovering" the desired attitudes and behaviors when placed in a situation that requires them (Lewin, 1953).
3. **Refreezing:** The individual integrates the newly acquired attitudes and behavior into daily activities and ongoing relationships. Whether the new behaviors are learned through identification or self-discovery, the individual will not display permanent behavior change unless the desired behavior is continually reinforced by superiors, peers, and subordinates (Schein, 1974).

When studying effects of lectures and discussions on nurses' food-buying habits, Lewin observed that lectures about the nutritional advantages of beef heart, sweetbreads, and kidney produced only temporary changes in food-buying behavior; but group discussion on the same topic produced permanent change in food habits. Lewin concluded that group discussions facilitated subjects' behavior change more than lectures, because discussion encouraged subjects to question current food habits (unfreezing), vocalize intention to serve unaccustomed cuts (changing), and support each other in making the recommended change (refreezing).

Douglas McGregor

The Hawthorne studies launched the Human Relation school of management, with Douglas McGregor, Chris Argyris, and Rensis Likert as leading theorists. According to McGregor, the traditional manager in a bureaucracy operates on a set of assumptions about human nature that he called Theory X. These assumptions are:

1. The average individual inherently dislikes work and will avoid it when possible.
2. The average individual prefers to be directed, wants to avoid responsibility, and is more interested in financial incentives than personal achievement.
3. Because people dislike work, they must be controlled, threatened, and coerced to put forth enough effort to meet organizational objectives.

McGregor questioned the validity of these assumptions and suggested that a different set of assumptions (Theory Y) provides a more accurate assessment of human nature, one that encourages workers to develop their full potential. The assumptions of Theory Y are:

1. Expenditure of physical and mental effort in work is as natural as rest or play.
2. People will exercise self-control and self-direction when pursuing goals to which they are personally committed.
3. Under proper conditions, the average person learns both to seek and accept responsibility.
4. The capacity to apply creativity in solving organizational problems is widely, not narrowly, distributed among workers (McGregor, 1960).

Chris Argyris

According to Argyris (1964), during maturation the individual moves to a condition of greater independence, increased activity, more varied activity, longer time perspective, and increased self-control. Argyris claimed that the rigid structure and stringent rules of a bureau-

cracy block normal maturation, encouraging employees to become passive and dependent and decreasing their job satisfaction and emotional health (Argyris, 1964).

Rensis Likert

Rensis Likert proposed that effective organizations are those where supervisors focus attention on building effective work groups with high performance goals, so workers will support organizational goals and cooperate with superiors and peers. Likert advocated a "System 4" approach to organizational development, in which organizational structure facilitates continuous interaction among various groups in the organization, so work is controlled through mutual influence by employees. A System 4 organization is one in which superiors and subordinates trust each other in all matters, information flows freely throughout the organization (upward, downward, laterally), employees participate in setting high but achievable goals, decisions are made at all levels, training is provided to upgrade personnel, and control mechanisms stimulate workers to solve their own problems (Likert, 1967).

Herbert Simon

Herbert Simon is a decision theorist who views business and service institutions as networks of decision makers. He advises that work decisions be made at all levels of an organization and that each decision be based on premises about people as information processors. Simon contrasts two approaches to decision making: optimizing, the approach used by the so-called Economic Man; and "satisficing," the method used by so-called "Administrative Man."

According to Simon, decision making includes three steps: (1) listing alternative strategies for problem solution; (2) determining likely consequences of each alternative; and (3) evaluating those consequences. To make a rational decision, the manager must select one behavioral alternative from several on the belief that outcomes of that alternative are most valuable. However, there are different bases for rational-

ity: A decision may be objectively rational if it maximizes certain values in a given situation or subjectively rational if the decision maker believes that it maximizes those values. A decision is organizationally rational if it maximizes achievement of organizational goals or personally rational if it maximizes achievement of the individual manager's goals.

Theoretically, Economic Man is completely rational and so uses optimizing decision strategy to seek greatest possible gain from each action. However, a manager's decisions are not objectively rational. Rationality requires the individual to choose the best alternative from all possible courses of action, when, in fact, only a few alternatives will come to mind. Furthermore, complete rationality requires knowledge of all the consequences of following each course of action, whereas an individual's knowledge of consequences is incomplete. Even if all possible alternatives and all consequences of each alternative were known, a decision maker could not achieve complete rationality, because human needs and interests change momentarily; so, first, one and then another value becomes paramount as attention shifts from one problem aspect to another.

Because there is no perfectly rational decision maker, Simon says that the contemporary manager displays "bounded rationality" and uses a "satisficing" decision method. In other words, the manager looks not for the best problem solution but one that is "good enough" to satisfy a set of minimum criteria. Administrative Man is willing to sacrifice, realizing that his perception of the world is only a simplified model of the real world. Therefore, he cannot be expected to visualize all possible problem solutions, nor predict all consequences of every action. A manager who will settle for a "good enough" decision can afford to use simple rules of thumb to guide decision making (Simon, 1957).

Alvin Toffler

Alvin Toffler, former editor of *Fortune* and university professor, claims that the increasing speed of change in our society has subjected

workers to a stress disorder ("future shock") that results from a too rapid arrival of the future. Toffler defines future shock as the physical and psychological distress that arises from overloading human systems for physiological adaptation and decision making (Toffler, 1971). He believes that the following aspects produce future shock in susceptible individuals: increasing transience of everyday life, reduced duration of man-thing relationships, frequent geographical and occupational change, accelerating scientific and technical advancement, rising divorce rate, proliferation of subcults and special interest groups, growing occupational specialization, increased age segmentation of society, and increasing diversity of lifestyles.

Toffler recommends that experts develop personal and social change regulators with which individuals can selectively deflect, decelerate, shape, or (occasionally) accelerate change in the interest of maintaining equilibrium. He advocates that individuals be taught to pace life's activities to improve their coping abilities. Coping skills that Toffler recommends for dealing with too rapid change include periodic introversion to assess one's reaction to change, consciously speeding or slowing the pace of activities to mesh them with environmental events, sensory shielding to prevent sensory overload, decreasing cognitive load by deliberately forgetting trivial information, reducing decision burden by postponing or delegating decisions, conscious withdrawal from overwhelming personal relationships, and creating stability zones in personal life to buffer instability in work life. A manager cannot retard societal rates of change. The best methods for minimizing future shock are techniques to guide the direction of change and increase one's comfort in coping with change.

Henry Mintzberg

Observing top managers' activities caused Henry Mintzberg to refute the notion that managers spend most of their time in planning, organizing, coordinating, and controlling activi-

ties (Mintzberg, 1973). Mintzberg claims that a modern manager is not a thoughtful, systematic planner whose decisions derive from careful analysis of objective data. He asserts that managerial activities are more reactive than proactive and are characterized by brevity, variety, and discontinuity. He concludes that managers do not base their decisions on so called hard data supplied by a management information system but on soft data acquired during informal conversations with others.

Mintzberg reports that the typical manager or administrator portrays 10 roles; three are interpersonal, three are informational, and four are decisional. The interpersonal roles are figurehead, leader, and liaison. As figurehead, a manager represents his institution at ceremonial events, such as conducting visiting dignitaries through the organization and hosting retirement teas for valued, long-term employees. As leader, a manager hires and trains subordinates, schedules work hours, distributes assignments, and directs group efforts toward agency goals. As liaison, a manager communicates with persons outside his or her vertical chain of command, to give or receive information, maintain good will, and integrate contributions from different work groups.

The informational roles are monitor, disseminator, and spokesperson. As monitor, a manager scans the environment for information needed to portray other roles. Most job-related information is obtained through the manager's informal contacts and exists in verbal form, as gossip or hearsay. As disseminator, a manager transmits some recently acquired information to superiors, peers, subordinates, or clients. The manager's motive for sharing a portion of her or his personal information may be to facilitate subordinates' performance, to "purchase" needed assistance from a peer, or to impress a powerful superior. As spokesperson, a manager directs work-related information to persons outside the unit or agency. Here, the manager reflects opinions, values, and viewpoints of his or her primary work group or agency to a somewhat removed audience, such as a consumer

group, another agency, or a professional organization.

The decisional roles are entrepreneur, disturbance handler, resource allocator, and negotiator. As entrepreneur, a manager develops new projects or programs to enhance agency image and welfare. As disturbance handler, a manager responds to high-pressure disturbances that threaten to disrupt the work force and defeat goals. As resource allocator, a manager determines what portion of the agency's financial, personnel, supply, and equipment resources should be allotted to each employee. In addition to allocating material resources, the manager allocates power, status, and time among subordinates, by developing work teams, making assignments, and evaluating performance. As negotiator, a manager confers with persons inside or outside the agency to obtain concessions or reach agreement on pivotal issues. Usually, a manager represents interests of the work group or total agency in negotiations with outsiders, as in negotiating a worker's employment contract, negotiating a labor contract with a union, or negotiating support services from another department.

Mintzberg claims that the 10 managerial roles constitute a gestalt, but managers do not give equal attention to each role. The roles are interconnected, so successful enactment of one supports successful enactment of another. At the same time, excessive attention to one role decreases time available for other roles. Most management information is stored as verbal information in managers' memories, rather than as documents in a file. Mintzberg advises managers to find ways to share their privileged information with superiors and subordinates who have a need to know it. He recommends regular debriefing sessions with key subordinates, regular "memory dump" onto a dictating machine, and diary recordings of important information for circulation to a selected few. Managers' time pressures cause them to give brief, hurried, discontinuous attention to important leadership matters. Mintzberg tells managers to resist the

tendency toward superficiality by scheduling blocks of time in which to step back from masses of "soft" information to obtain a broad picture of agency programs. He believes that senior managers and top executives need help from management scientists to understand complex organizational issues. Managers have direct access to voluminous information about agency operations. Management scientists are skillful in extracting information from blocks of unorganized data. Collaboration between the two will produce higher-quality decisions than either can produce independently.

A manager can obtain lengthy time periods to study complex issues by maintaining control over her or his own calendar and daily time schedule. Many managers function reactively rather than proactively; so their daily schedules are determined by the people to whom they respond on demand. Effective managers turn obligations into opportunities, finding ways to accomplish peripheral objectives while executing each required job task. For example, while making a speech at a ceremonial event, the manager can take the opportunity to champion a personal cause. While chairing a standing committee, the manager can monitor members' pre- and postmeeting conversations to assess the level of employee morale.

As much time and effort should be spent in educating managers as in educating information specialists, researchers, accountants, and clinical nurse specialists. Mintzberg listed the following as most important managerial skills: developing peer relationships, negotiating agreement, motivating subordinates, resolving conflicts, establishing information networks, disseminating information, making decisions under uncertainty, and allocating resources economically. Managers can be helped to acquire these skills through demonstration, practice, and feedback (Mintzberg, 1973).

JAPANESE MANAGEMENT

Since World War II, Japanese industry has significantly improved productivity and product

- MEMO CAPSULE -**Japanese Management Concepts**

- Employee development: Select for character, train in house.
- Lifelong employment: Worker identifies with organization.
- Slow career progress: Work in numerous departments and jobs.
- Collective action: No starry decisions by work group.
- Continuous improvement: Client needs guide agency efforts.
- Face saving. Employees are moved and supported until successful.

quality, whereas American industry has suffered falling profits and loss of consumer confidence. Some theorists claim that this country's industrial leaders could increase worker productivity and bolster profits by implementing Japanese management methods. When the prospective payment system and nursing shortage of the 1980s created problems in the health industry, some nursing leaders used Japanese management techniques to alleviate staffing and quality problems.

Japanese management methods derive from executives' underlying philosophy about workers, work, and product. This philosophy incorporates the following concepts: lifelong employment in the same firm; infrequent evaluation and promotion; nonspecialized career path development; implicit control of worker behavior; collective decision making; group responsibility for quality; and holistic concern for the employee's welfare (Smith, Reinow, and Reid, 1984). These concepts correspond to characteristics of Japanese society. American culture is heterogeneous because of its multiethnic origins; Japanese culture is homogeneous. Americans use an analytic approach to understand a complex phenomenon; the Japanese use a ho-

listic approach. As a result of their cultural values, the Japanese believe that once a company's fundamental philosophy is established, other decisions will flow naturally from that philosophy. Similarly, once the overall goal for a program is established, other decisions will flow naturally from that goal. Consequently, Japanese administrators and managers do not work out all steps of a proposed project before project implementation. Japanese managers do not specify every detail of a worker's responsibilities in the job description either. Instead, managers devote considerable time in guiding members of the primary work group to reach consensus about their work goal and the best way to reach the goal (Yoshida, 1989).

From an employee's standpoint, the advantages of Japanese management philosophy and methods are stability of employment, flexible personnel policies, and strong identification between employer and employee. Employment stability and economic security arise from the fact that once the worker has been hired, he or she need only follow directions and do a passably good job to be retained by the company. Furthermore, the worker can be confident that the company will provide everything needed for job performance, including a congenial atmosphere, required tools, machinery, supplies, and special clothing. To ensure a congenial work atmosphere, management will minimize disparity in employees' abilities, so that one or two stars cannot embarrass mediocre workers.

Japanese personnel policies are flexible in order to optimize employee career development. In selecting new employees, administrators do not look for persons who already possess specific skills or experience. Instead, employees are chosen for their character, upbringing, and family background. After they are hired, employees are given standardized training to provide them with moderate competence in all job skills needed by the company and are rotated from job to job to give them a well-rounded view of the company's total purpose and program. The purpose for exposing each employee to the full

range of company work roles and activities is to create an extremely versatile employee, who can be transferred from one job to another as needed to further company goals and promote the individual's career development. In general, employees' monetary and other rewards are seniority based, rather than ability based. When job tenure rather than performance quality determines rewards, employees do not attempt to outperform others to obtain higher salary or earlier promotion.

Assurance of lifelong employment causes an employee to perceive his or her fate as inseparable from company destiny. Identification with company goals and welfare is reinforced by the employee's rotation through all company departments and produces strong company loyalty and work motivation (Okada, 1986). The company's strong identification with employees causes them to transfer an employee whose performance is unsatisfactory to another position or department where his personality, skills, and experience will produce greater job success.

Ouchi (1981) developed Theory Z as a means for applying Japanese management principles to American industry. This approach combines elements of Japanese and American management practices in order to combine the strengths of both. Theory Z calls for long-term employment, a *combination of specialized and generalized training* for career development, slow promotion based on nonthreatening peer evaluation, group decision making based on both quantitative and qualitative data, decentralized control of performance quality, and concern for *both* employee and agency welfare. The principles of group decision making and decentralized control of quality are implemented through quality circles.

In a quality circle the manager and members of the primary work group meet for an hour each week to solve work problems or (when no problem exists) improve work processes and outcomes. The purpose of a quality circle is twofold: (1) to engage employees in continuous

planning, evaluation, and improvement of work materials and processes; and (2) to remove communication barriers between management and workers through frequent, close interaction (Smith et al., 1989).

Japanese management processes have been successful in assembly line production (Blocker and Overgaard, 1982). In some health agencies, implementation of quality circles was followed by improved employee morale, decreased staff turnover, enhanced team spirit, improved communication between nurses and physicians, or decreased staffing expenditures. Despite the reported effectiveness of quality circles in these agencies, experts believe that it is impossible to transplant Japanese management practices in toto to American work settings (Smith et al., 1989). Japanese cultural values of face saving and collective action predispose managers to use indirection, ambiguity, subtle cues, and implicit messages to control worker behavior. On the other hand, American values of forthrightness and individuality predispose managers to use confrontation and direct commands to control worker behavior. To use Japanese methods effectively, American managers need sensitivity training to differentiate between the task-related information that can be communicated directly to subordinates and the interpersonal, evaluative information that should be communicated indirectly (Schein, 1987).

The greatest irony in Japan's current economic superiority is the fact that the Japanese attribute their success to implementation of Dr. W. Edward Deming's concepts of quality management. Deming was an American management consultant who went to Japan following World War II to train Japanese managers and workers in methods of market research and process-improvement techniques. By following Deming's principles, Japanese manufacturing shifted from production of low-quality merchandise for personal and home use to production of high-quality electronic and mechanical equipment for business communication and technology (Lynn, 1991).

Whether or not American nurses intend to implement the Japanese management system, they should contemplate the following Japanese management principles, as presented by Yoshida (1989):

1. To improve service delivery, each employee must start with a clear conception of what the most desirable service would include.
2. A manager can eliminate the need for continuous inspection by building quality into the process or product in the first place.
3. If employees do not understand the fundamental institutional purpose, simple application of rules and procedures will not improve productivity and quality.
4. The notion of replacing an unsatisfactory worker with a more satisfactory worker requires that one perceives the total organization as a complex that is composed of separable and replaceable parts.
5. Replacement of an unsatisfactory worker with a more satisfactory worker causes insecurity for remaining workers.
6. Too close linking of responsibility to authority produces feelings of sectionalism and decreases loyalty to the organization as a whole.

SUMMARY

A number of management scholars developed the theoretical base for current management practice. Frederick Taylor advocated that jobs be analyzed using time and motion studies to determine how to train employees for efficient performance. Henri Fayol saw need to balance worker regimentation and scalar chain of authority against concern for equity and esprit de corps. Max Weber praised the bureaucratic organization as most effective in providing stability and order in a changing environment. He urged that employee rights and duties be clearly defined to prevent confusion and conflict. Mary

Follett cautioned managers against arbitrary use of authority, advising managers and workers to analyze job problems together and take their orders from the situation.

Elton Mayo and Fritz Roethlisberger demonstrated that social and psychological factors have greater influence than working conditions on employee productivity. Kurt Lewin said that to change employee behavior permanently, a manager must weaken the customs and traditions that uphold the status quo, model the desired behavior, allow time for employees to practice the desired behavior, and provide continuing support until the new behavior becomes habitual. Douglas McGregor refuted the notion that employees dislike work, avoid responsibility, and must be forced to support organizational goals. Chris Argyris claimed that bureaucratic formalism and rigidity prevent normal maturation and encourage employee passivity and dependence. Rensis Likert said that institutions should be structured to facilitate constant interaction among various work groups and stimulate lateral as well as vertical communication through the hierarchy.

Herbert Simon concluded that most managers use simple rules of thumb to make decisions that yield not the best possible problem solution but one good enough to fit minimum criteria. Alvin Toffler said that the rate of social and technological change will continuously accelerate and that matrix organizations permit construction and dissolution of short-term project teams to implement high-tech programs. He advised managers to use periodic introversion, sensory shielding, and delegation to reduce cognitive and sensory loads to manageable levels. Henry Mintzberg explained that managers are not objective, contemplative decision makers but hurried, harried reactors to crisis. In preparing to fulfill three interpersonal, three informational, and four decisional roles, managers should acquire special training in developing support networks, negotiating contracts, managing conflict, and using decision aides.

RESEARCH BRIEF

Relationship between Learned Helplessness and Self-Care Agency

Purpose: Examine relationships between learned helplessness and adults' perceptions of their power to perform self-care.

Sample: Volunteers: 151 men and 158 women between 21 and 65 years of age, who were employed full-time

Method: Investigator approached potential volunteers individually at their work sites to explain study purpose and procedure and promised confidentiality. Each subject was given a packet containing consent form, study directions, demographic data sheet, and two measuring tools: (1) Perception of Self-Agency Scale (PS-CA), a 53-item self-report with a 5-point scale; and (2) Learned Helplessness Scale (LHS), a 20-item self-report with a 4-point scale. Subjects were asked to take the questionnaires home for completion and return them to the investigator the next day. Of 314 questionnaires distributed and 314 returned, 309 were complete and were analyzed.

Findings: Subjects scored fairly high on the Perceived Self-Care Scale. There was significant negative correlation between Learned Helplessness and Perceived Self-Care Scores. In responding to three health-related questions, 77 percent of subjects reported that daily efforts to maintain health was of high or medium priority; 98 percent reported they were "very healthy" or "moderately healthy."

Application: Pressure continues to move patient care from inpatient to outpatient settings. Because patients now spend less time with professional caregivers, it is important to promptly assess each patient's self-care ability and compensate for self-care deficits. According to this study, patients who believe they cannot by their own actions influence illness outcomes are unlikely to profit from instruction in self-care. Further research is needed to find methods of countering learned helplessness.

Source: McDermott, M. Learned helplessness as a mediating variable with self-care agency: Testing a theoretical model. *Nursing Science Quarterly* 6(1): 28-38, 1993

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Mission, Philosophy, Goals, and Objectives

*The world turns aside to let any man pass who knows
whither he is going*

DAVID STARR JORDAN

OBJECTIVES

After reading this chapter, you should be able to:

1. Diagram the points of relationship between the mission and philosophy of your nursing department
 2. Diagram the points of relationship between the philosophy and goals of your nursing department.
-

Organizational planning is a type of managerial decision making that includes investigating the environment; diagramming the overall organization system and major subsystems; clarifying organization mission and philosophy; establishing organization goals; assessing organization resources and capabilities; identifying possible courses of action, predicting the effectiveness of alternative courses of action, selecting a present course of action, and preparing employees to carry it out.

Ideally, an organization should develop a

statement of philosophy before declaring the organization's mission. However, in the usual sequence of events, an organization first defines its mission, then issues a statement of the implicit beliefs that led to mission selection (Darr, 1987). Generally, the first step in planning nursing operations is personnel agreement on a statement of nursing mission. The mission of the nursing department should derive from the overall agency mission (available in the Board of Directors' and top executive's annual report) and from nurse managers' philosophy of nurs-

The mission of Middletown Community Hospital Nursing Department is to administer high-quality, cost-effective care to patients and families, provide health promotion programs for community members, maintain a supportive environment for education of professional nurses, and promote career development of nursing employees.

Figure 3-1 Sample mission statement.

ing (Figs. 3-1 and 3-2). In some agencies, members of the nursing staff organization select a specific nursing theory or conceptual framework as the basis for the nursing philosophy, mission, and goals. For example, nurses in a church-affiliated hospital might adopt Orem's Self-Care Theory to ground nursing practice in the agency. Ideally, all nursing personnel should participate in selecting a theory or conceptual framework and a philosophy for practice. After these have been agreed on, managers and representatives of all nursing specialties should

compose a mission statement to direct and integrate group activities.

To decide an agency's nursing mission, planners should first assess the nursing department's internal and external environment (Thieme, Wilson, and Long, 1981). To ensure that the mission is realistic, planners should know the size and character of the agency's catchment area, the population(s) to be served, social and health problems common to agency clients, and strengths and weaknesses of nursing staff members.

After the departmental mission has been established, nurse administrators, managers, and staff should enunciate a statement of the beliefs to support and inspire nursing activities. This statement should include, at a minimum, department members' beliefs about the nature of life, health, illness, environment, nursing care, and patient-family-nurse relationships. The philosophy statement may also include beliefs about the agency's clientele, work force, pro-

Members of Middletown Hospital Nursing Department base their nursing practice on the following beliefs.

1. Life and health are primary goods.
 2. Each person is unique and has intrinsic worth, so is deserving of respect, without regard to such individual characteristics as sex, age, color, nationality, religious conviction, and socioeconomic status.
 3. Illness and injury are perceived by the individual and his significant others as a threat to autonomy, independence, identity, and existence.
 4. The experiences associated with normal maturation do not prepare a person for the adaptations needed to cope with illness and illness care.
 5. Nursing consists of providing or assisting a patient to perform those functions that he or she would perform independently if better informed or more able.
 6. Persons drawn to nursing have concern for others, welfare, a belief in personal efficacy, and a desire to actively engage fate.
- Nursing interventions are most effective when they are directed toward the patient's health goals, based on research evidence, individualized to meet the patient's needs and circumstances, and coordinated with care by other health team members.
8. High-quality nursing care can best be provided by a mixture of professional and nonprofessional personnel who are organized into self-directed work teams.
 9. To ensure continuous improvement of nursing care quality, the role of the professional nurse must include responsibility for nursing research and nursing education, as well as for patient and family care.
 10. When jobs for nursing personnel are designed to ensure employee autonomy and self-actualization, patient care quality, patient satisfaction, and employee satisfaction are maximized.

Figure 3-2 Sample nursing philosophy.

grams, services, and methods. Graham et al. (1987) described how environmental pressures—such as changes in reimbursement systems and competition from other agencies—necessitated change in the nursing philosophy of a children's hospital. Interestingly, this organization's revised nursing philosophy proved useful as a "positioning statement," because it described areas of nursing excellence that were useful in marketing agency services to potential clients. As nursing becomes more business oriented, nursing department philosophy becomes increasingly important. In health care agencies, as in the industry studies by Peters and Waterman (1982), the shared values of employees have greater influence on organizational success than do the organization's structure, economic resources, or technological capability.

MEMO CAPSULE

Nursing Philosophy Consists of Beliefs about

- Person
- Environment
- Life
- Health
- Illness
- Nurse-patient relationship
- Nursing care

After the nursing department's philosophy and mission have been established, departmental objectives should be developed to fulfill the chosen mission according to the group's professed beliefs. When nursing executive, managerial, and professional staff members have all approved the statements of departmental philosophy, mission, and objectives, these statements should be distributed to all nursing employees and displayed in every nursing unit.

The next link in the chain of sequential planning for nursing services should occur in each nursing unit. Each head nurse or nurse coordinator

should lead the unit's professional nurses to develop statements of nursing unit philosophy, mission, and objectives. To integrate nursing efforts throughout the chain of command, these unit documents should agree in spirit and substance with similar documents for the total nursing department. For example, if departmental philosophy refers to religious beliefs underlying the nursing mission, unit statements of philosophy should reflect consonant beliefs. If departmental mission speaks of intent to prepare patients for self-care, statements of unit mission and objectives should mention similar intentions.

MEMO CAPSULE

Planning Tools

- Mission: Organizational level
- Philosophy: Work force level
- Goals: Department/division level
- Objectives: Unit individual level

Considerable effort by first line managers is needed to maintain coherence between overall nursing department beliefs and goals and unit-based patient care activities. Overworked managers may allow this relationship to deteriorate. In a study of acute care nursing departments, Trexler (1987) discovered minimal integration of documents relating to nursing philosophy, mission, and objectives. In only 13 of 27 nursing departments were all three documents (philosophy, purpose [mission], and objectives) available. At the nursing unit level, all three documents were available in only 1 of 89 units. Statements of philosophy and purpose were available on 16 units; statements of objectives were available in 21 others. Content analysis revealed that less than one-half of nursing unit philosophy, purpose, and objectives statements were clearly related to comparable documents for the total department.

Previously, experts differentiated between tactical and strategic planning. Tactical or op-

erational planning was based on short-term perspective. Strategic planning was based on long-term perspective. This distinction is probably no longer helpful. Today, the speed of societal change makes it impossible to forecast organizational circumstances for months or years in advance. Therefore, the focus of planning should shift from long-range strategies to short-range tactics that will permit managers to quickly adjust nursing operations to rapidly changing circumstances. In the past, slower rates of change enabled managers to delay response to social cues until broad-scale changes in life-style or service demand were well established. Today, a manager who delays planning until a detailed need survey is available is subject to "paralysis by analysis," an inability to move on unclear information.

Planning is the formulation of a scheme to achieve one or more goals; strategic planning is the formation of a scheme to reach goals while conserving scarce resources (Fox and Fox, 1983). In nursing management, scarce resources are personnel, equipment, supplies, and funds. Present demands to control health care costs will make these resources even more scarce.

The planning process outlined includes general exploration of environment; nonspecific analysis of agency subsystems; brief statement of mission and philosophy; setting idealized agency goals and annual objectives; assessing current capabilities; postulating possible courses of action, selecting a preferred course; and preparing employees to follow the action plan. Strategic planning requires that assessment include a search for *threats* and *opportunities* in the environment, and for the identification of *strengths* and *weaknesses* of agency structure and personnel (Schermerhorn, 1984). Managers should state the nursing mission with care, making it broad enough to allow for vision and creativity, and narrow enough to focus employees' efforts. Nursing goals should be phrased to suggest strategies to achieve departmental mission. Annual nursing objectives should operationalize the department's goals (i.e., objectives should describe specific nursing actions and patient out-

comes.) Lack of clarity in mission, goals, or objectives causes employee confusion and scattering of effort (Thieme, Wilson, and Long, 1981). The search for environmental threats and opportunities should reveal population shifts that eliminate the need for a current service or create a need for a nonexistent service (Bruton, 1982). Environmental assessment should also identify agencies that compete for the organization's clients and should reveal changing health care patterns that might strengthen or weaken the agency's economic status. Evaluating the agency's internal strengths and weaknesses would indicate whether present personnel resources permit the introduction of new patient services such as rehabilitation nursing, home health nursing, and family teaching and counseling groups. Internal evaluation may indicate a knowledge or skill deficit among nurses for which merging with another agency would permit more cost-effective in-service education.

According to Hayes (1985), most planners begin with goals, or ends, and work backward to ways and means for goal accomplishment. Hayes believes that this approach weakens an agency's competitive edge, because strong emphasis on goals blocks the staff's innovative tendencies. Whereas Kamis (1977) advises shortening the planning cycle and decreasing emphasis on long-term goals, Hayes cautions that emphasis on quantitative goals and short planning cycles produces episodic thinking and unimaginative decisions, rather than visionary inspiration. Hayes argues that goal-oriented strategic planning reduces organizational flexibility but means-ways-ends planning fosters expertise at lower hierarchical levels and, so, keeps the agency moving forward despite changing service demands.

MEMO CAPSULE

Planning Direction

- Backward: Goals to ways, to means
- Forward: Means to ways, to goals

MANAGEMENT BY OBJECTIVES

Management by Objectives (MBO) is a systems approach to directing personnel that links desired work outputs to necessary work inputs and throughputs (Fain and Sheathelm, 1984). Like many management tools described here, MBO can be used both to plan and control work. Peter Drucker introduced the MBO concept in the 1950s to improve the motivation and productivity of American workers. The concept was so effective in managing business and industrial employees that many American companies continue to use MBO in some form (Making Management by Objectives work, 1978). Public demand for high-quality, low-cost nursing care has caused some nurse managers to adopt the MBO approach in motivating professional staff to greater productivity.

Drucker was quick to point out that MBO is a managerial philosophy as well as a management technique (Drucker, 1954). In other words, the method is effective only for managers who *believe* that subordinates should set personal work goals and will allow workers to prioritize goals and select means for achieving them. In its simplest form, MBO is a system whereby each staff member is coached by his or her supervisor to construct five to six short-term work goals, plan specific activities to achieve the goals, and measure the amount of goal achievement at monthly, bimonthly, or semiannual intervals.

Purpose of Management by Objectives

The purpose of MBO is to make goal setting routine among workers at different organizational levels and to encourage workers to make risk-taking decisions objectively. Risky decisions require that information be gathered to predict outcomes of alternative actions, the most urgent of several possible objectives be chosen, the most effective method be used to achieve each objective, and the results of that method be evaluated. Increasing specialization in nursing has led to the decentralization of nursing management decisions. Management by

Objectives is helpful in encouraging staff nurses to make day-to-day operating decisions that improve nursing care quality. The public's demands for higher quality care can be met only if each nurse accepts responsibility for upgrading her or his own clinical practice.

Lay persons have been made aware of possible dangers from treatment errors and omissions. Therefore, consumers are clamoring for improved health care quality. Higher quality patient care could be provided at reduced cost if nursing departments were more results oriented and less process oriented. Management by Objectives encourages managers and employees to focus increased attention on improving work outcomes.

Effects of Management by Objectives

Health agencies are characterized by stressful internal and external environments. Therefore, nurse managers concentrate most of their energy on coping with immediate problems and spend little time attending to long-range goals. On the other hand, the chief executive of a health agency concentrates most of his or her attention on long-range goals and gives little thought to methods and materials needed to meet immediate objectives. Management by Objectives forces the thoughtful negotiation of performance objectives by each supervisor-subordinate pair and, so, emphasizes means and ends interdependence at all organizational levels. Consequently, work methods are tailored to maximize goal achievement, and work output at each organizational level provides useful input for employees at each of the next higher levels.

Management by Objectives improves worker productivity, because it strengthens employee identification with agency mission and goals. At the same time that it facilitates agency progress, MBO promotes employee welfare and morale. Each worker develops performance objectives in collaboration with her or his immediate supervisor. Thus, it is easy for the manager to adjust assignments to fit individual interests and

aspirations. Therefore, MBO enhances worker self-esteem and self-actualization.

Management by Objectives eases a new worker's assimilation into a complex organization and, by encouraging self-direction and skill building, increases chances for promotion. Under MBO, employees know what is expected of them, obtain regular feedback on performance, and receive coaching from a committed supervisor. Generally, employees mature more rapidly under these conditions than with autocratic supervision.

Management by Objectives makes sense from a logistics standpoint. Managerial control is most effective when applied as close as possible to action. With MBO, both action and control reside in the same person, as each worker regulates personal performance by pursuing self-selected goals.

Management by Objectives promotes organizational efficiency, because each worker's assignment is designed by the person most knowledgeable about that worker's interests, abilities, needs, and goals—the worker herself or himself. With MBO, the supervisor's role is not to establish goals for a subordinate or to direct her or him in goal pursuit. Instead, the supervisor acts as mentor or coach, helping the worker correlate career plans with job realities and organizational needs.

Management by Objectives is especially effective in supervising knowledge workers, such as nurse practitioners and clinical nurse specialists. Knowledge workers prefer supervision that entails minimal interference with daily routines but provides readily available guidance in handling unfamiliar problems. An MBO supervisor need not smother a subordinate by overseeing all aspects of performance, because the employee's self-selected objectives effectively regulate usual activities. Thus freed from routine employee monitoring, the supervisor is more available for coaching and counseling during crisis situations.

Management by Objectives is helpful in putting into effect broad scale organization

change. Often, planned improvements in nursing operations founder because of resistance from long-term employees who are threatened by a disruption of status quo. Much opposition to organizational change arises from workers' reluctance to exchange a present certainty (however unsatisfactory) for future uncertainty. Resistance also results from workers' ignorance of the causes and effects of proposed work schedules and procedure changes. One way to decrease worker anxiety and minimize resistance to change is to allow employees some control over the direction and rate of change. By writing personal work objectives, a staff nurse gains autonomy in initiating and controlling personal change.

Under Management by Objectives, goal setting becomes a deliberative, collaborative process. Before setting short-range job goals, a staff nurse should analyze the current job description, assess personal strengths and weaknesses, and review plans for career advancement. The supervisor should act as consultant during goal setting, helping the nurse to balance obligations to the agency against self-appraisal data, personal goals, and environmental pressures.

Management by Objectives is strongly results oriented. However, the method is effective only if as much effort is spent in supporting employees' personal growth as in increasing agency productivity.

Advantages of Management by Objectives

Organizations that use MBO have some advantages over more traditional ones. First, the specification of performance goals in behavioral terms by superior-subordinate pairs clarifies reporting relationships and span of control for upper-, middle-, and lower-level managers.

Second, MBO leaders delegate much responsibility to subordinates, who thereby acquire additional management skill and commitment to agency success. Management by Objectives encourages the delegation of responsibilities, because the majority of a manager's time is spent in helping employees to analyze problems, select

priorities, formulate objectives, establish action plans, and evaluate results. In order to isolate blocks of time for coaching subordinates, a nurse manager must relinquish routine administrative tasks by delegating them to appropriate subordinates.

Third, MBO improves quality of planning at all organization levels. Collaborative goal setting by each superior-subordinate pair links each worker's efforts directly to overall agency goals. Because workers know they must evaluate their performance against self-selected goals at year's end, employees' goals tend to be realistic.

Fourth, workers who set personal performance goals are more productive than those whose goals are imposed by superiors. Self-directed employees concentrate efforts on activities that promote goal achievement and omit busy work. Worker productivity increases, because, through common concentration on agency goal(s), work outcomes of all employees become more mutually supportive. By coaching subordinates in goal setting, a manager can meld efforts of dissimilar workers into an integrated team (Making Management by Objectives work, 1978).

Fifth, worker morale is higher under MBO than under autocratic leadership, because workers are less frustrated by self-imposed than other-imposed constraints. Morale is higher under MBO, because a supervisor's clarification of agency goals encourages cooperation in the primary work group and promotes rapid assimilation of new hires.

Sixth, workers who set their own objectives can be more fairly evaluated than workers managed autocratically. With MBO, employee and supervisor together select a few (three to six) from many possible goals to guide employee effort over a six- or twelve-month period. Understandably, the employee concentrates most effort on improving those aspects of performance to be evaluated at year's end. Although the employee is responsible for self-evaluation under MBO, a manager who uses this technique can more accurately evaluate subordinates than

a more directive manager. While coaching a nurse to identify problems, gather data, select goals, design actions, and evaluate results, the manager learns much more about the nurse's knowledge and attitudes than could be gleaned by simply viewing overt aspects of performance.

MEMO CAPSULE

Advantages of MBO

- Links employee goals to agency mission
- Strengthens employee orientation.
- Fosters employee self-direction
- Minimizes resistance to change.

Preparing Staff for Management by Objectives

Both managers and workers must be prepared for MBO if the technique is to be effective. A nurse executive who intends to move the nursing department from conventional management to MBO should alert the total nursing staff to the philosophy, purpose, and procedures by which nurses will establish personal work goals. Goal setting is the heart of MBO, but when the method is introduced, personnel will be more interested in the purpose for leadership change than in methods for writing behaviorally oriented objectives.

Next, the nurse executive and divisional directors should prepare a brief written statement of nursing department purpose, goals, and performance standards. This "trigger" document should be distributed to all nurses and discussed in unit, divisional, and departmental meetings.

Members of a work group must agree on their present circumstances to be able to set realistic long-range goals. Therefore, professional nurses should assess their department's level of performance at the point that MBO is implemented. This statement of current status is the basis for establishing departmental and employee objectives and should be the benchmark for judging department progress under MBO.

Following the implementation of MBO, the nurse executive should periodically evaluate nursing progress against the earlier statement of current status and forecast the department's position at five and ten years in the future. By comparing departmental forecasts with predicted health service needs, nursing administrators can determine what alterations are needed to improve nursing operations.

After long-range nursing goals are set, managers should identify the activities most likely to promote departmental goals. Identified activities should be analyzed by answering the following questions about each:

1. Do current nursing policies and practices need improvement?
2. Is need for improvement related to organizational weakness or employee incompetence?
3. What are space, material, and personnel resources that affect nursing performance?
4. Have there been changes in client demand or interest?
5. How does quality of nursing performance compare with performance quality of other health professionals?
6. Are there research findings that indicate how nursing performance can be improved?
7. Would some change in the external environment (community, health industry, nursing profession) be likely to improve nursing performance?

Nurse managers can use the results of this analysis to determine the cause(s) for unsatisfactory nursing performance, identify methods for improving operations, and postulate risks from managerial interventions.

After administrators have decided which nursing issues are most important to patient welfare and agency success, a list of high-priority nursing issues should be distributed to all nursing personnel, with the request that they address these issues in setting personal performance objectives.

In addition, managers should analyze nursing department operations to discover internal and external factors that enhance and impair nurse performance. A manager may find that an academic degree correlates with success in the head nurse role. Perhaps preparation as nurse practitioner or clinical specialist facilitates promotion to middle-level management. It may be that functional or team nursing assignments correlate with high nurse turnover. Perhaps prior experience on the union's contract-negotiating team increases a head nurse's skill in handling unionized staff. There may be evidence that experience in tutoring foreign nurses increases a manager's success in personnel management. A high proportion of nonprofessional staff in a unit may be associated with high turnover of professional nurses. Perhaps orienting a new employee to two or three nursing units facilitates later "floating" of the employee during emergencies. After identifying such facilitating and hampering factors, a manager can better advise subordinates on how to manipulate these factors to enhance job success.

In preparing nursing department staff for implementation of MBO, the nurse executive should arrange for all departmental job descriptions to be updated. Each nurse's personal performance objectives are expected to reflect agency goals and departmental needs, as well as personal aspirations. Therefore, the nurse must be given an accurate and comprehensive statement of work contributions expected from the person filling the position. Job description creep occurs, because there is a tendency for each employee to subtly adjust details of the generic job description to accommodate personal skills and interests. Because change in the tasks associated with any position inevitably alters the character of contiguous positions, job descriptions should be periodically updated to reflect current practice.

Preparing Job Objectives

Before coaching subordinates, each manager should practice writing personal job objectives.

To begin, the manager should analyze her or his own job description, paraphrasing portions of the document to yield: (1) an outline of major job features; and (2) the points at which the manager's responsibilities intersect those of other managers or subordinates. From the circulated list of significant nursing department issues, the manager should select two or three that are closely related to her or his job responsibilities and write a personal performance objective for each. The manager should discuss these personal performance objectives with her or his supervisor and clarify any misunderstandings or disagreements. Manager and supervisor together should establish a target date for achieving each objective (6 to 12 months later) and develop an action plan for meeting each goal. Successful negotiation of her or his own work goals will prepare the manager to coach subordinates through the process.

Sample Objectives

Following is a sample of objectives that might be established by a first-line nurse manager:

By June 1, 1994, I will have:

1. Established critical indicators for monitoring the quality of care delivered to:
 - a. Confused elderly residents
 - b. Aphasic poststroke patients
 - c. Lower extremity amputees
2. Instructed all unit nursing personnel in the proper method for estimating amount of gastric residual in patients with gastrostomy feedings
3. Written a set of nursing practice standards for patients of the following types:
 - a. Elderly patients with urinary incontinence
 - b. Elderly patients with decubitus ulcer
 - c. Elderly patients who are fall-prone
4. Teach unit nursing personnel how to inform newly admitted residents of their right to:
 - a. Record advance directives for care
 - b. Appoint a decision surrogate for health affairs

Guidelines for Formulating Objectives

In coaching employees to write performance goals, the manager should follow these guidelines:

1. Each objective should describe observable behavior in clear and unambiguous terms.
2. Each objective should be difficult enough to challenge employee ingenuity, but be possible to attain within institutional constraints.
3. Ideally each objective should be measurable in quantitative terms.
4. A target date should be set for the achievement of each objective.
5. The final statement of each objective should be acceptable to both employee and supervisor.
6. Criteria should be established to determine whether the objective has been met.
7. Each objective should support overall agency goals and coworkers' objectives.

After completing the first draft of annual performance objectives, the staff nurse should meet with her or his supervisor to review, refine, and approve the goal statement. During this meeting, the supervisor and employee should develop a detailed action plan for each objective. The supervisor's knowledge of nursing, group work, and agency affairs should be used in coaching the employee to avoid unnecessary obstacles en route to personal goals.

In designing the action plan for each objective, employee and supervisor should first identify all activities necessary for goal achievement. These should be arranged in optimal sequence. The pair should decide who is to perform each action (if the employee need not perform all). The supervisor can then assign other employees to provide needed assistance at appropriate intervals. Finally, the pair should determine the materials and agency approvals needed to achieve each objective and request these from the appropriate executive or department.

During the meeting in which the staff nurse's personal performance objectives are approved

MEMO CAPSULE

Effective Objective

- Significant
- Unambiguous
- Observable
- Measurable
- Challenging
- Achievable

and action plans developed, the supervisor should set a date for the pair to assess the nurse's progress in goal achievement. In some agencies, each employee sets annual goals at the beginning of the year, and employee and supervisor meet for formal reckoning of performance quality at year's end. A better plan is for the pair to formally evaluate employee performance both at mid-year and year's end. If the employee has made little progress after six months, the two can decide whether lack of success results from poor planning, inadequate effort, or lack of coaching. Appropriate remedies at mid-year may produce successful outcomes by the final target date. Mid-year assessment also enables the supervisor to provide more proximate reward (positive feedback) for the subordinate's superior performance during the first six months, thereby reinforcing desired behaviors.

Disadvantages of Management by Objectives

Although MBO can improve productivity in health agencies, the technique does have some disadvantages. Critics claim that MBO can hamper managerial skill development by limiting attention to those problems, tasks, or projects that can be anticipated weeks or months in advance. However, nurse managers spend much time in coping with uncertain and unexpected situations. Consequently, fledgling managers need to acquire tolerance of ambiguity, poise under pressure, and problem-solving ingenuity to operate comfortably in unfamiliar situations. A manager can increase staff ability to handle

confusing or unpredictable situations by choosing *one* performance objective each year that requires portrayal of an unaccustomed role, exercise of undeveloped talent, or expression of unpopular opinion. A head nurse might choose the following performance objectives to expand her or his skill repertoire and increase managerial adaptability.

By June 1, 1994, I will.

1. Complete a clinical research study on patient outcomes from reminiscence therapy and present study findings to members of a nursing organization in the community.
2. Coach each of the unit's nurses in writing five performance objectives in behavioral terms to serve as the basis for her or his end-of-year performance evaluation.
3. Plan and present a Nursing Grand Rounds program for all agency nurses that will include nursing practice standards, legal issues, and ethical concerns for care of a patient in persistent vegetative state.

Too rigid application of MBO can disrupt nursing department operations. Excessive emphasis on future goals may cause some managers to neglect routine and repetitive managerial responsibilities. For example, employee punctuality and attendance may not be checked, fiscal expenditures and supply usage may not be monitored, personnel policies may not be updated, housekeeping rules may not be formulated, vacation schedules may not be coordinated. Managerial neglect of such "housekeeping" tasks causes chaos in the workplace.

Unfortunately, MBO does not support current cost-containment efforts. Because supervisor-subordinate pairs focus attention on ends rather than means, little time is spent in searching for the least time-consuming, least difficult, least expensive method of realizing each performance goal. Furthermore, goal setting is tied directly to performance evaluation. Therefore, desire for promotion could cause a fast-track nurse to set extremely ambitious performance

goals that require expensive equipment and supplies or extensive managerial coaching.

Finally, MBO decreases the manager's chances of detecting a worker's unrecognized potential for innovation. While pursuing highly specific, self-selected goals, an employee's attention is so narrowly focused that she or he is unlikely to react spontaneously to chance events, volunteer for additional tasks, or develop new protocols for the sheer joy of experimenting. A manager can keep MBO from damping employee spontaneity and creativity

by urging each nurse to select one objective each year that fosters self-actualization.

MEMO CAPSULE

Disadvantages of MBO

- Ineffective in unpredictable situation.
- Encourages neglect of routine tasks.
- Ignores cost containment.
- Discourages innovation.

RESEARCH BRIEF

Nurses' Beliefs about Death

Purpose: Ascertain beliefs of nurses in Australia and in the United States regarding aspects of passive euthanasia.

Sample: Thirty American and 32 Australian nurses, half employed in acute, half in long-term care settings.

Method: Eight vignettes were developed depicting various situations in which the patient is likely to die: (1) 83-year-old female with cancer of lung and brain metastases who wants to die; (2) 5-year-old child with leukemia and chemotherapy, suffering repeated infections and continuous pain; (3) 69-year-old male with multiple myeloma and numerous fractures who refuses to eat; (4) 3-year-old who drowned, was resuscitated, has only brain stem activity, but is otherwise healthy; (5) 33-year-old C 3-4 quadriplegic motorcycle accident victim who refuses treatment and wants to die; (6) fiercely independent 80-year-old female auto accident victim with two broken legs and severe, but operable internal injuries, who is alert and oriented; (7) 65-year-old male who suffered a stroke during prostate surgery, is unresponsive to all but pain, and is mechanically ventilated; (8) 15-week premature baby with ventricular septal defect, hydrocephalus, clotting defect, and intracranial bleed.

Findings: In only two vignettes did American and Australian nurses agree on both what is done and what *should* be done. All believed the 33-year-old quadriplegic would be and should be force-fed if necessary. All believed the independent 80-year-old would and should be treated. Where the two groups disagreed, Americans were more apt to believe the patient would be treated. Americans were more ambivalent about whether food and fluids should be withheld. Australians referred less to legal implications and allocation of scarce resources. Americans more often described themselves as patient advocates.

Application: Unlike America, Australia has a national health care system—so there are clear policies on resource allocation and few malpractice suits against health professionals. In America, the patient rights movement gained momentum from civil rights and women's rights movements, so is more fully developed than in Australia. These national differences in social philosophy and policy are responsible for some of the observed differences in nursing philosophy of American and Australian nurses.

Source: Lewis, A., and Lyster, P. U.S. and Australian Nurses' Attitudes and Beliefs about the Good Death. *Image Journal of Nursing Scholarship* 21 (1): 34-39, 1989.

SUMMARY

The nurse manager's first step in work planning should be to establish long- and short-range objectives for the unit or division. These should support overall agency goals, which should support agency philosophy and embody the values of agency leaders. To direct employee efforts appropriately, the agency philosophy should state shared beliefs about the meaning of health and illness; patient rights; ideal relationships between patients and caregivers; patients' and caregivers' responsibilities for planning and implementing care; methods for interdisciplinary cooperation; and optimum methods of patient care. To maximize employee productivity and satisfaction, each employee's annual work objectives should be stated in behavioral terms, be quantified and qualified, indicate expected date for achievement, and include criteria for evaluating work outcomes.

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Systems Approach

*Open systems have the characteristic of equifinality,
i.e., objectives can be achieved with varying inputs
and in different ways.*

FREEMONT KAST

OBJECTIVES

After reading this chapter, you should be able to:

1. Diagram the budget system, the staffing system, or the quality-improvement system of your nursing organization, indicating several information, supply, and personnel inputs, throughput processes, product and service outputs, and principal feedback loops.
 2. Indicate how the addition of another input, throughput process, or feedback loop could improve the function of the diagrammed system.
-

A systems approach is especially necessary for the planning and control functions of management. A system is a set of objects or elements that interact to achieve a specific goal. The totality of any system includes not only the set of objects or elements necessary to attain system goals but attributes of those objects and elements and relationships among them. A system is not just an orderly arrangement of parts but an ongoing process that consists of diverse elements and their interrelationships. Further-

more, each system includes interconnected subsystems, each of which has an objective that advances goals of the larger system (Hodge and Anthony, 1984.)

CHARACTERISTICS OF A SYSTEM

A system is capable of maintaining some degree of organization in the face of disturbing internal and external influences. For example, a health agency's informal organization or unofficial communication system usually continues

to function despite radical changes in the agency's formal structure. The maintenance of system function under stress is due, in part, to feedback of information from one system element to another.

FUNCTION OF A SYSTEM

The function of a system is to convert information, energy, or materials into a planned outcome or product for use within the system, outside the system, or both. The nursing process is a system that converts knowledge and skills of the nurse, patient, and patient's family into supportive and therapeutic interventions against illness, debility, and loss.

With each passing year the nurse manager's job becomes more complex. Advances in medical science have markedly expanded the scientific basis for nursing interventions. A growing body of nursing research has been developed to resolve practice problems. Rapid social changes have caused new health problems, rendered older care delivery patterns unsatisfactory, and produced radical changes in the structure and operation of the health industry. Computer science has revolutionized data handling and decision making (Mikuleky and Ledford, 1987). As knowledge of biological science, medicine, psychology, sociology, and economics expands, it becomes more difficult for nurse manager's to comprehend the highly complex operations that they oversee. A systems approach facilitates understanding of a complex phenomenon by encouraging information chunking and clarifying relationships between different aspects of the phenomenon and, as such, is an important tool in nursing management (Toronto, 1975).

HISTORICAL BACKGROUND

Nicholas of Cusa in the fifteenth century spoke of the "*coincidentia oppositorum*," or fight among the parts of a complex whole that, somehow, results in a higher degree of unity (Bertalanffy, 1972.) General Systems Theory was introduced in 1936 by Ludwig Von

Bertalanffy, a biologist who saw the need for a single, systematic, theoretical framework to account for the striking parallels found in different scientific disciplines (Bertalanffy, 1968.) Bertalanffy theorized the existence of principles and laws that apply to all systems, regardless of their specific elements and goals. He believed that research would reveal these laws and principles and provide useful definitions of such system characteristics as wholeness, differentiation, progression, centralization, hierarchical order, and equifinality. Rapoport and Horvath (1968) suggested that a science of complexity, such as General Systems Theory, is needed to understand a world growing in complexity.

General Systems Theory, which explicates principles applicable to different types of systems, enables specialists in different disciplines to share insights and build on each other's discoveries. Furthermore, General Systems Theory provides a basic framework for joining content from different disciplines into a comprehensive body of knowledge that can be applied to life in general. Another purpose of General Systems Theory is to design models of sufficient accuracy and complexity to facilitate study of real situations that are not amenable to experimentation.

The knowledge explosion has rendered the traditional (nonsystemic) view of complex phenomena ineffective, because it is impossible for the human mind to comprehend a large body of unorganized data. As the scientific knowledge base has grown, scholars in each field have specialized, restricting their attention to increasingly narrow segments of their field (Boulding, 1984). A specialist is thus one who knows more and more about less and less. In the health field, physicians and nurses have specialized to such an extent that physicians in one specialty and nurses in another have difficulty communicating, with the result that the patient must coordinate efforts of multiple caregivers to ensure that treatments of diverse specialists are complementary, rather than contradictory. The family health care movement developed, in part, to

provide a generalist (systems expert) to coordinate diverse efforts of the multiple health experts serving each patient. According to Churchman (1979), successful management of a large-scale service agency requires a systems approach to problem solving. For example, program evaluation and review technique, program budgeting, and management information systems represent systems approaches to the functions of planning, budgeting, and communication.

SIGNIFICANCE OF SYSTEMS THEORY TO THE NURSE MANAGER

The nurse manager must work within, among, and on a variety of different systems. At every career step, managers are enmeshed in a system. The health agency in which they work is a structural system. The nursing department of which they are a part is a functional system (Knowlton et al., 1983). The management process that is their job responsibility is a power system. The nursing process that they direct is an information and service system. The nursing procedures and protocols that they develop and promulgate are mental-motor work systems, that is, systems that require both cognitive and physical effort. Each employee that they supervise is a personality system. The work group that they lead is a social system. Each of these systems is goal directed (i.e., inputs and throughputs for each system are designed to achieve specific objectives). Any system can malfunction. Malfunctioning of a single subsystem in any nursing system can impede goal achievement for the total agency. Therefore, the nurse manager should strive to decrease negative effects and increase positive effects of the formal organizational system, the social system, and the individual systems that influence nursing care quality.

A creative manager can minimize the stultifying effects of the bureaucratic system by instituting a democratic or participative management philosophy to stimulate all personnel to participate in goal setting and outcome evaluation. A skillful manager capitalizes on com-

munication features of the bureaucratic system by using lower- and middle-level managers (head nurses, supervisors, divisional directors) as linchpins, assigning each to several committees with slightly overlapping responsibilities. The sophisticated manager uses the organization's social system to improve employee morale by assigning to each committee and work group some individuals who are skilled in group-maintenance functions to ensure that someone in the group can encourage, support, and relieve tensions of those who specialize in task functions. The astute manager protects workers from unnecessary anxiety by sending a steady supply of accurate information about agency events through the informal communication system (grapevine). The effective leader strengthens the personality system of each worker by providing sufficient orientation, training, and coaching to ensure job success. The humanitarian manager minimizes troublesome mannerisms in subordinates' personality systems through behavior modification, that is, by ignoring undesirable behavior and rewarding desired behavior. Of course, the manager's ability to decrease negative and increase positive effects of organizational, social, and individual systems will depend on the permeability of system boundaries to environment influences.

Typically, the job description stipulates that a nurse manager has responsibility for solving problems about health maintenance, disease causation, organizational structure, nursing care delivery, interpersonal communication, employee and materiel distribution, and agency-community relations. Each of these responsibilities involves a complex of interrelated individuals, objects, and events. The traditional approach to managerial problem solving is to look for simple cause-and-effect relationships, such as postulating inadequate orientation as cause for poor nursing performance, inadequate salary as cause for rapid personnel turnover, or inadequate patient education as cause of poor compliance with prescribed treatment. However, research shows that nursing service deliv-

ery problems are extremely complex. Often, a single patient outcome results from several nursing actions, a single nursing intervention produces several patient changes, and most human behavior has multiple determinants. The challenge for nursing management is to identify several variables that contribute to a particular nursing outcome or employee attitude and clarify relationships among those variables, so the manager can improve patient care and staff development.

The systems concept can be used to analyze organizational functioning. Each organization is unique in developing stress-coping methods which differ from those used by other organizations (Jaski and Verre, 1981). An agency's coping pattern tends to become habitual, so each agency develops an enduring individual character, or organizational "personality." To comprehend organizational character, a manager must view the organization as a suprasystem that is organized for a particular purpose and composed of several subsystems that differ in size, complexity, character, and importance.

Because most health agencies have multiple goals and each agency consists of numerous subsystems, it is easy for a nurse manager to become absorbed in the minutiae of one subsystem, losing sight of the agency's goals and other subsystem functions. A systems approach to management information (such as unit census, patients' length of stay, budget allotments, personnel on payroll, and recruitment and turnover statistics) will facilitate efficient and effective patient care. By analyzing periodic, organized data about expenditures and nursing performance, the manager can monitor departmental progress toward established targets without spending excessive time gathering information about peripheral issues. Using a systems approach, a nurse manager is unlikely to trade off the agency's long-term welfare for short-term gain (or savings).

In any health agency, organizational goals outstrip resources. Therefore, nurse managers must prioritize possible service programs, per-

sonnel assignments, and equipment and supplies purchases. In deciding which of several programs to implement, the manager should construct a systems diagram for each program, to identify the nature and costs of inputs, forecast the effectiveness of throughput processes, predict the value of outputs, and weigh input-output ratios—all to rank the programs' desirability (Feldman et al., 1983). If agency nurses suggest that group instruction be implemented for diabetic, stroke, and spinal-cord-injured patients, but funds are not available to implement all three, the manager should calculate the personnel, equipment, and supply costs for each, the number of patients that would be served by each, and the economic and public relations advantages to be realized from each program. The manager can then estimate the input-output, or benefit, ratio for each program and recommend the program that most effectively supports the agency's economic and service goals.

Systems analysis, which is both a planning and a control tool, provides valuable information for decision making and problem solving. By breaking a complex system into subsystems and identifying the interconnections between subsystems, the analyst can attend to multiple factors, scrutinize each, and determine how alteration of each factor would affect total system function. In this way, alternative solutions can be found for problems in the megasystem (Zielstorff, 1977). The systems approach is a flexible means of problem solving, because the analyst is free to define the system in any fashion. System definition consists of drawing a boundary around a set of objects, people, or events to include some inputs, throughputs, outputs, and feedback loops and exclude others. System boundaries define the scope of a system and determine the type and source of control actions needed to regulate system operations (Johnson et al., 1976). By redrawing system boundary lines, the manager can quickly "re-frame" a difficult organizational problem, making it more responsive to remedial interventions.

One method of system analysis is model

building, that is, constructing an abstract representation of the system in verbal, diagrammatic, or structural form. The purpose of a system model is to capture the essence, but not the overwhelming details, of a system, in order to clarify system elements and relationships. A systems model permits experimentation among possible interventions to improve system functioning, such as changing the type and amount of inputs, reordering throughput processes, and repositioning feedback loops.

Health care agencies are becoming project-oriented autocracies in which temporary work teams are continuously formed and disbanded. A systems approach can increase work flow efficiency in an adhocracy. In project-oriented autocracies of the future, managers will have to control the work rather than the workers, as frequent changes in work group composition will weaken the bonds between managers and subordinates. By outlining the tasks in a complex process according to proper time sequence and specifying points in the process where information and decisions are needed to ensure timely progress, a manager can improve the flow of activities toward desired goals. A system model enables a head nurse to identify the environmental supports that maximize effectiveness of unit staff. Viewing each nursing procedure as a goal-oriented system stimulates a manager to build feedback loops into the procedure, which facilitate the focusing of nursing effort.

A systems approach is helpful in evaluating the nursing department's effectiveness, because it enables managers to contrast cost of system inputs with value of system outputs (Bedard and Johnson, 1984). Obvious inputs to the nursing system are people (nurses, nurses' aides, clerks), equipment (thermometers, basins, carts), and supplies (incontinent pads, lotion, dressings, linen) used in providing care and comfort for patients. Less obvious inputs to the nursing system are agency purpose and philosophy, nursing theory, and research findings about nursing interventions. Although monetary value can be assigned to obvious inputs, it is difficult to quan-

tify the value of less obvious inputs. Several throughput processes operate simultaneously in the nursing department. The most obvious is the patient care process, which moves some patients from an impaired, dependent state to a more whole and independent state, and protects others from unnecessary loss of comfort, strength, and integrity as they succumb to irremediable illness or injury. A less obvious nursing throughput process is the system for staff development, in which employees are brought from lower to higher levels of knowledge and skill through coaching and education. A third nursing throughput process is the nursing research program, through which employees discover methods for improving patient care and health promotion.

There are numerous nursing department outputs, including patients' improved vital signs, improved activities of daily living (ADL) functioning, increased comfort, improved self-care knowledge, and increased satisfaction with care (Wolff, 1986). Other outputs are nurses' increased knowledge and skill, and employees' research reports and scholarly papers. Although it is difficult to assign monetary value to these outcomes, they can be ranked to show the relative contributions of each to total department output. It is helpful to contrast input and output values for the three subsystems (patient care, staff development, nursing research). If the staff development subsystem ranks second in cost and third in output value, but the research subsystem ranks third in cost but second in output value, the staff development program should be revised to increase its effectiveness.

Finally, a nurse manager should understand the systems approach, because systems terminology is used by members of other health disciplines. The physiological principle of homeostasis, the chemical principle of equilibrium, cybernetics mechanisms for endocrine regulation, the interpersonal theory of personality development, and feedback loops in communication theory are all systems concepts that nurses should understand and use.

As nursing work becomes more specialized (burn nurse specialists, chemotherapy nurses, diabetic teaching nurses, dialysis nurses, stoma therapists, coronary care nurses, discharge nurses, home health nurses, genetics counseling nurses, etc.), various experts become interdependent, and managers must integrate the work that has been allocated among specialists. A systems view of nursing will identify the input needed from each clinical specialist to all nursing subsystems and ensure feedback of appropriate patient and staff information from each specialist to other caregivers.

Problems are apt to arise when a complex enterprise is not approached from a systems viewpoint. Telemedicine techniques (telecommunication connecting a patient and health care provider through live, two-way audio, two-way video transmission across distances) were developed in the 1960s and 1970s. According to Preston and associates (1992), these techniques fell into disuse during the 1980s, because telemedicine was then an information system operating in a climate and time innocent of information systems and systems management. Perhaps nurses ignore some clinical and management innovations simply because they are systems phenomena for which no systems perspective is provided.

LEVELS OF SYSTEM DEVELOPMENT

As indicated, individual systems have much in common with each other, even though they differ in specifics. One theorist believes that there are nine levels of system development, differing from one another in degree of self-sufficiency, complexity, and adaptability (Wren, 1972). At the lowest, or simple, end of this continuum is the structural framework, such as a health agency's table of organization, which is a static system and is easy to control and comprehend. At the next level of complexity is the clockwork, a simple dynamic system that is moving, highly predictable, and must be controlled externally. Many patient care devices, such as a passive movement machine, are of this

type. At the next level is the cybernetic device, which is dynamic, predictable, and capable of self-regulation within narrowly defined limits, such as an electronic intravenous fluid volume controller. Next in complexity is the cell, an open and dynamic system that has been programmed for self-maintenance under changing external conditions. At a still higher level of complexity is the plant system, an open, dynamic, genetically determined system that is capable of self-regulation through a wide range of changing external and internal conditions. Still higher in complexity is the animal system, an open, dynamic, genetically determined system that adjusts to its environment by making inner physiological adjustments and forming simple social groups. Man is the next higher system; one that is open, dynamic, self-regulating, and adaptive through a wide range of circumstances, through ability for abstract thought and symbolic communication. The social system is more complex than the individual system, more open to environmental influence, and more adaptive to circumstances, because of broader collective experience and a wider skill reservoir. Finally, the transcendental system is the most complex and most freely adaptable to circumstances because it lies above and extends beyond the boundaries of individual and social systems.

CLASSIC SYSTEM ELEMENTS

Because the various levels and types of systems are defined by differences in their constituent parts, the nurse manager must be familiar with the nature and function of the classic system elements. The elements of any system are goal, environment and control, input, process or throughput, output, and feedback (Fig. 4-1). The attributes of a system are the properties of the system's elements. The relationships within any system are the bonds that link elements and attributes to the system goal. A system event is a change in one or more structural properties of a system during a specified interval. The state of a system at any point in time is the complex of properties possessed by the

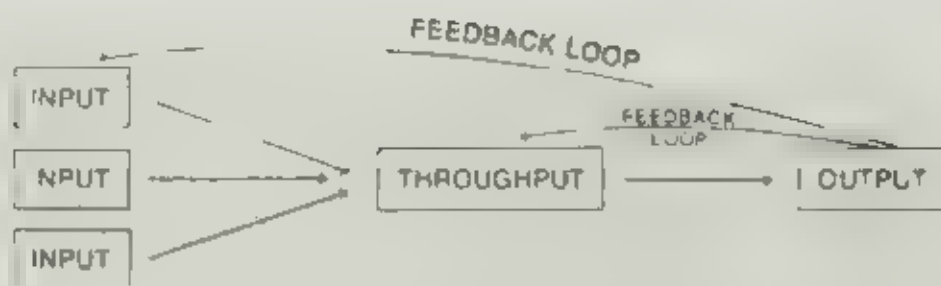


Figure 4-1 Classic system elements

system at that moment. Each relationship can be classified as essential, contributory, or antagonistic. In an essential relationship, such as symbiosis, two elements are functionally *necessary* to each other. The nitrogen-fixing bacteria that live in the root nodules of legumes enjoy a symbiotic relationship to the host plant, because neither can survive without the other. In a contributory relationship, two elements are *complementary* in that each supplies what the other lacks. For example, purine and pyrimidine molecules are structured to fit together in the DNA molecule. In an antagonistic relationship, two elements are *contradictory*. For example, acetylcholinesterase halts the action of acetylcholine in the synaptic cleft.

Environment

Each system is defined in relation to its environment, and the system's environment can be defined only with reference to the system and its boundaries. A system's environment is defined as a set of objects, events, or conditions that is not part of the system but has a bearing on system functioning. Each system is separated from its environment by the system boundary, which is established by the system's analyst or designer. In deciding where to draw the boundary for a man-made system—that is, to decide which elements are part of the system and which elements are part of the environment—the analyst should ask the following questions: (1) Can the system controller restrict operation of the element? (2) Can behavior of the element influence the system's goal achievements? If the

answer to the first question is "No" and the answer to the second question is "Yes," the element is part of the system's environment. In describing the nurse staffing system for her or his agency, a nursing director may decide that the community's RN shortage is a part of system environment if the shortage is beyond the director's control and prevents the director from hiring enough of the right types of nursing personnel to provide needed patient care.

Input

Input is the energizer and operating material of the system. It may consist of information, money, energy, time, effort, or raw material. The input component of a system is that element that receives the operating material from the environment or from another system. Inputs for health organizations systems may be technical, social, financial, or human. In the business world certain inputs—capital, labor, equipment, and supplies—are referred to as "intensives," meaning that these are increased when management wants to augment the speed or quality of system performance.

Throughput

Throughput is the process or series of actions by which the system converts energy input from the environment into products and services that are usable by the system itself or by the environment. It is important to realize that throughput is not a purely mechanical procedure, but a process that can be modified in response to feedback about system performance.

Output

Output is the final outcome of system throughput, the product or service resulting from system processing of technical, social, financial, and human input. The output of a particular nursing system might be defined as nursing care for adult medical-surgical patients that will result in an average hospital stay of seven days and less than 5 percent incidence of nosocomial infections (infections originating in the hospital).

Litterer applies the concept of system output in an interesting way. To his way of thinking, all organizational phenomena are outputs of the organizational system. Adherence to this concept prevents scapegoating of an individual worker by employees who hope to assuage their own feelings of guilt by fixing blame for operational failures on a marginal member of the group. On identifying an organizational shortcoming, a systems-oriented manager would ask what system, rather than what individual, had produced the unsatisfactory result, so that members of the primary work group could analyze the problem without undue defensiveness (Litterer, 1973).

Feedback and Control

Feedback is information about some aspect of data or energy processing that can be used to monitor and evaluate system performance and guide it to more effective performance (Kast and Rosenzweig, 1981). Because a certain percentage of maladaptive responses can be expected in any system, feedback components are needed to detect system errors and signal need for correction. Feedback is a subsystem that compares output of a system or subsystem with some criterion measure, in order to judge quality of system operation. If system output is found wanting, control can be exerted from inside or outside the system to alter operations in a manner that ensures achievement of desired outcomes. Controls are actions taken by system operators to regulate input, process, or output

elements so as to improve system functions. Control over input regulates the cost of operations. Control over throughput regulates the time, efficiency, and safety of operations. Control over output regulates production quality and quantity.

SUBSYSTEMS

Complex systems can be broken into numerous subsystems. An organizational system, such as a hospital nursing department, consists of several subsystems. In the nursing department there are power-authority, communications, work flow, reward and punishment, role subsystems, and so on. Each subsystem has a goal that serves the overall goal of the department (Fig. 4-2). Each subsystem has a boundary and input, throughput, output, and feedback elements. To optimize nursing department performance, the manager must understand the interplay of nursing and other subsystems that support the goals of the total agency.

The subsystems within a complex system can be linked together in several ways. They can operate simultaneously, in tandem, parallel to each other, or in series with each other. When two subsystems are similar in nature and time duration and each is unnecessary to the other, but the output of both is necessary to success of the larger system, the two subsystems may operate in parallel. Thus, the personnel-recruitment and supply-procurement systems of a hospital operate in parallel. When two subsystems are unnecessary to each other, but their combined outputs are required to energize system throughput processes, the two are linked in tandem. Thus a nursing department management information system and personnel-orientation system may operate independently, but outcomes of the two must be linked in order for the department to produce clinical nursing research. When the output of one subsystem becomes the input of another, these subsystems are usually linked in series throughout the larger system. Thus, the personnel-recruitment, ori-

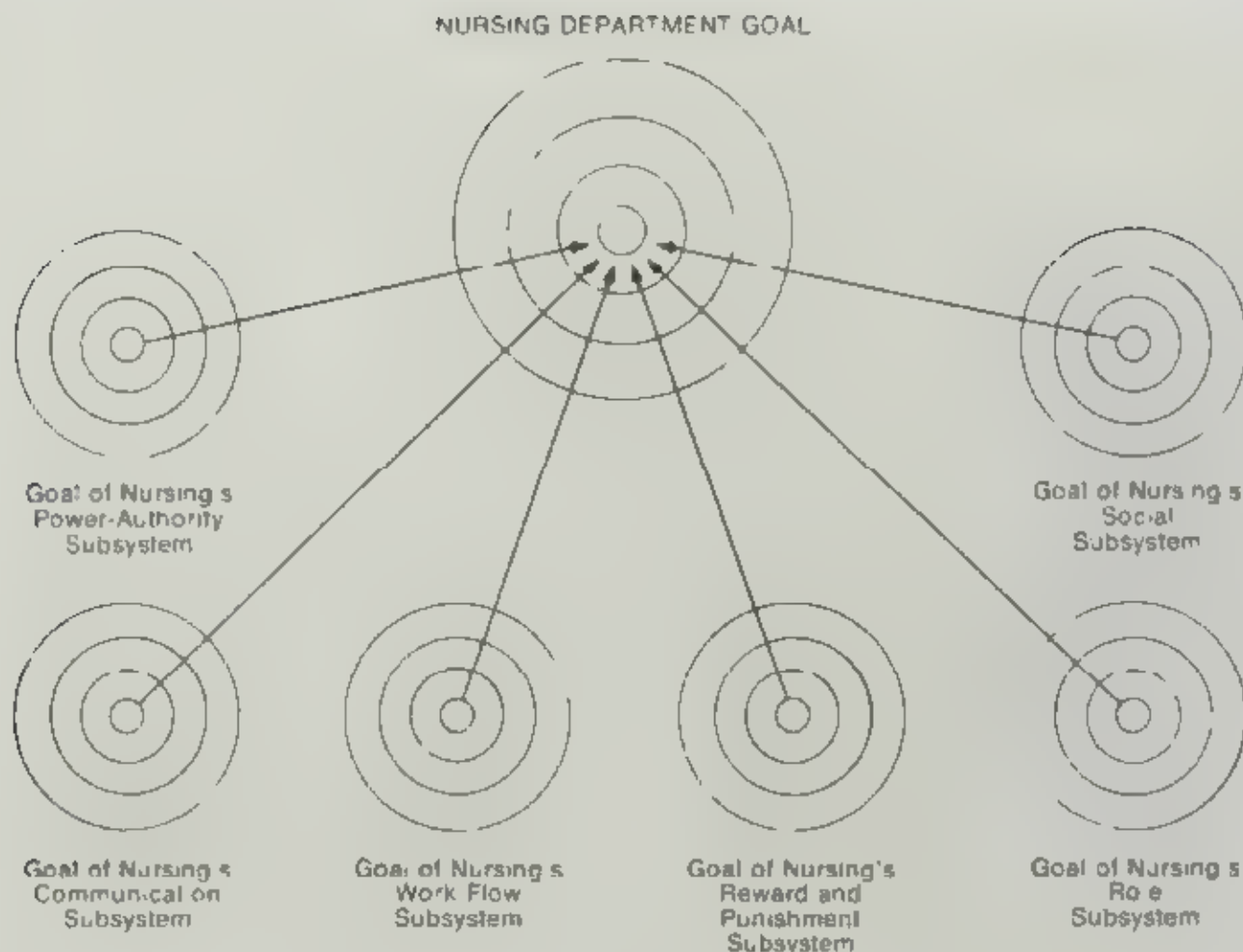


Figure 4-2 Subsystem goals advance departmental goal

entation, and staff-assignment systems of a health institution are linked in series.

Each health organization is a complex socio-political system. Analysis of organizational systems typically reveals the existence of three subsystems: the required subsystem, the personal subsystem, and the emergent subsystem (Coffey et al., 1975). The required subsystem includes all activities, interactions, and sentiments necessary to ensure institutional survival. The personal subsystem includes all values, beliefs, knowledge, attitudes, and aspirations that the individual employee brings with her or him on entering the organization from the outside world. The emergent subsystem includes all behavior of employees in the work group that is not required by institutional rules and policies

but grows out of interaction between the required and personal subsystems. The volume of work and the scarcity of clerical personnel in the central nursing office may cause the nursing director to decide that the payroll clerk, the office receptionist, the director's own secretary, and the staffing coordinator should relieve one another for lunch, coffee break, vacation, holiday, and sick time. If the four employees have equal tenure and hierarchical rank, the director (part of the required subsystem) may direct each of the four to train the others in her or his job duties and schedule their time so as to distribute choice lunch hours, holidays, and vacation time fairly among the four. The employees' personal systems may include sentiments that make it difficult to give or receive direction from peers

in the same minority group. The emergent subsystem in this situation is likely to include quasi-hostile, quasi-jocular bantering among the four, in which each seeks to achieve personal goals without jeopardizing the work or risking open confrontation with a potentially dangerous adversary.

MEMO CAPSULE

Sociopolitical Systems

- Required: Table of organization, job descriptions, culture
- Personal: Individual beliefs, attitudes, knowledge
- Emergent: Primary work groups, cliques, grapevine

In any organization the required, personal, and emergent subsystems are closely interrelated. The required subsystem encourages emergent behavior to develop. The cooperation required between nurses in an intensive care unit may encourage clique formation among employees who share common ethnic or educational backgrounds. The interrelations among required, personal, and emergent subsystems are cyclical in nature. When close interaction prescribed by the required subsystem heightens the personal attraction of one worker for another, their increased friendliness leads to even closer task interaction, with resulting change in work flow. At the same time, the required subsystem imposes restraints on the emergent subsystem. That is, official job demands, resulting from workplace layout, work schedules, and work load, limit the time available for non-work-related interactions. Such work-imposed restraints prevent friendship ties between co-workers from progressing indefinitely. Instead, in each primary work group, work related and personal interactions reach an equilibrium. The point at which the balance is struck depends on

work load, status differences between members, and individual personalities. When one member of a work group has more formal authority than others (e.g., a nursing administrator who serves as project leader), or one member has greater expertise than others (e.g., a nurse clinical specialist serves as trainer for a group of aides), or when the informal group leader is forbidding in manner, high levels of fear and awe may block development of emergent behavior.

TYPES OF SYSTEMS

In order to design, use, and modify systems effectively, a nurse leader must be able to capitalize on the characteristics of different types of systems. Systems can be classified as natural or man-made, static or dynamic, deterministic or probabilistic, open or closed, centralized or decentralized, external or internal.

Natural and Man-Made Systems

A natural system is one that grows out of natural processes, remains stable over long periods of time, and operates within well-defined limits. Geological changes, occurring over billions of years, and biological evolution, occurring over hundreds of thousands of years, are examples of natural systems. A man-made system is one that is artificially contrived by a human entrepreneur to accomplish a desired end. A nurse-recruitment system, orientation program for new employees, nurse staffing program, and quality-improvement program are all man-made systems. In man-made systems the boundaries, input, throughput, and feedback have been thoughtfully selected to produce specific outcomes. Because man-made systems do not usually remain stable over long periods, they require constant monitoring and frequent adjustment (Burke, 1987).

Static and Dynamic Systems

A static system is one that constitutes a steady state, in which neither system elements nor the total system changes in relation to its environment. A dynamic system is one that continu-

ously alters and is altered by its environment. For example, a catatonic schizophrenic patient may *appear* to be a static system, because the patient's behavior—even his or her position—remains fixed despite changing external stimuli. On the other hand, the personality of a healthy young adult is a dynamic system, growing and developing toward greater self-sufficiency and self-direction, as the individual responds to stimuli from family, peers, work activities, and recreational pursuits.

Deterministic and Probabilistic Systems

A deterministic system is one in which the parts interact in a predictable way, once the state of the system is known. If the system controller changes one input element in a deterministic system, it is possible to accurately predict output of the changed system (Litterer, 1973). The electrical alarm system on a cardiac monitor is an example of a deterministic system, because when cardiac rate limits are set for 60 and 100 beats per minute, one can predict that an alarm bell will sound or a light will flash when the patient's heart rate drops below 60 or increases beyond 100. A probabilistic system is one in which the outcome of system performance is somewhat uncertain, so it is impossible to make a precise prediction about performance of system components or total system output (MacFarland, 1976). The nursing process is a probabilistic system, because one cannot predict with absolute certainty the degree of physical comfort, improved functioning, or improved morale that a patient will experience in response to nursing interventions on his or her behalf.

Open and Closed Systems

A closed system is characterized by fixed, automatic relationships among system components and no give and take with the environment. Because a closed system does not absorb energy or materials from the environment into system processes, the system inevitably proceeds toward an equilibrium that is characterized by energy degradation. An open system interacts

with its environment, trading materials or energies with surroundings, with the result that the system reaches a dynamic equilibrium in which parallel, serial, and suprasystems interact. Inputs to an open system are likely to be raw materials, human labor, and work-related information, that are transformed during throughput into output (products and services) that can be used by other system components or external clients. An open system is goal oriented, its components are dynamically related, the boundary is open to external influence, systemic throughput and feedback are self-regulating, and the entire system is capable of growth, development, and adaptation (Bahm, 1983).

Because no system is completely open or completely closed, the nurse manager should investigate the degree of openness of any system that he or she must oversee. If the health agency is a rigid, unyielding structure, isolated from patients and the nursing community, the manager may decide to make the nursing system more receptive to environmental influence. If these efforts are unsuccessful, the manager may leave the organization for more stimulating work elsewhere. Furthermore, a manager seeking to prepare for job promotion should analyze graduate school curricula for relationships between a university's nursing department and the sociology, psychology, medicine, public health, and business departments. Ideally, a graduate student in nursing would be encouraged to take elective courses in related disciplines or have a faculty member from another discipline as member of her or his thesis or dissertation committee. A graduate nursing student should seek the most open educational system possible, so long as programs are of approximately equal quality and cost.

Centralized and Decentralized Systems

A centralized system is one in which a single subsystem plays so dominant a role that it minimizes the importance of other subsystems. In some hospitals and clinics the medical subsystem is given highest status and a central position

in the total organization, with nursing, dietary, social service, pharmacy, x-ray, and business subsystems serving as adjuncts to the central medical function. A decentralized system is one in which all subsystems are of equal importance. They may be arranged like satellites around a central coordinating subsystem but are linked in series or parallel fashion, with each producing a different, equally important output. A nursing in-service division might operate three equally important, equally valued educational systems simultaneously: orientation for new personnel, continuing education for seasoned employees, and staff development for future leaders.

External and Internal Systems

An external system is a sociotechnical system consisting of behaviors that are determined by formal organizational structure and function (required subsystem). For example, wearing a white uniform, punching a time clock, and carrying a stethoscope may be part of a staff nurse's external behavior system. An internal social system consists of behaviors that develop from interaction between formal job requirements and individual needs (emergent subsystem). Thus, an operating room nurse may carry a sack lunch and eat in the operating room staff lounge rather than in the main hospital dining room, both to avoid the clothing change required on leaving the operating room suite and to socialize with coworkers.

The staff nurse's external system is largely determined by the nurse manager, who sets job specifications, determines work flow, selects applicants for employment, prepares work schedules and assignments, and brings people together in specific ways. Newly hired employees are strangers to one another and to the agency. As they become acclimatized to the work situation, they cooperate and socialize with each other, which predisposes to friendship ties with particular coworkers, so that there evolves an entirely different basis for their interaction—the emergent or internal system—that modifies

their behavior beyond the effects of the required or external system.

Purposive and Purposeful Systems

Ackoff (1971) differentiates between a purposive and a purposeful system in the following way. A purposive system is a multigoal seeking system, in which the several goals have a common property. Although a purposive system can pursue different goals at different times, the system operators are not free to select the goal to be pursued. Instead, system goals are selected by the system initiator. A college of nursing in a state university that operates undergraduate and graduate nursing programs is a purposive system. The college faculty might be capable of providing any of the following nursing programs: generic baccalaureate; baccalaureate completion; generic masters, postbaccalaureate masters; nursing doctorate; nursing science doctorate; or doctorate of philosophy. However, a college of nursing's operators (dean and faculty) cannot, alone, decide which types of nursing programs to implement. The university's board of governors and university president will decide which of the mentioned nursing programs will be supported by state funds.

A purposeful system is one that can produce the same outcomes in different ways in the same internal or external state and can produce different outcomes in the same internal and external state. In other words, a purposeful system can change its goals under constant conditions; it can select ends and means; and it displays intentionality. A free-standing visiting nurse association that discontinues a well-baby program and shifts personnel and financial resources to a teenage pregnancy program is a purposeful system, because the agency can decide on its own to abandon one goal and pursue another, using self-determined methods and time schedules. Recent changes in professional nursing philosophy and practice can be interpreted as evolution of the nursing profession from a purposive to a purposeful system: It is intended that health agency administrators and

physicians will cease to dictate nursing care goals and methods and that nurses will assume total responsibility for both.

SYSTEMS ANALYSIS

Systems analysis is a scientific and detailed definition of a system that examines the system's purpose, overall requirements, number and types of subsystems, and nature of subsystem interactions. Systems analysis is related to operations research, an investigative activity used during World War II to make most effective use of scarce Allied military equipment. In operations research, mathematical techniques are used to compare alternative courses of action and make decisions that yield the greatest return on the smallest investment of money, manpower, and materiel. Systems analysis uses many techniques of operations research. The two approaches differ in that operations research is applied to aspects of organization functioning that can be fully quantified, whereas systems analysis is applied to situations requiring judgment and intuition, because some problem aspects cannot be quantified (Filley et al., 1976). When a system malfunctions; system objectives are unclear; there are multiple system components; system members are in conflict; or the environment is uncertain, systems analysis is a more appropriate method of problem solving than operations research, because mathematical formulation of some system components is impossible.

When dealing with nursing problems that cut across multiple nursing units, systems analysis is more effective than simpler problem-solving methods, because it counters each manager's inclination to seek advantage for her or his own unit at the expense of others. Systems analysis forces the problem solver to examine the relationships of all subsystems to the total system objective and to the environment. Consequently, the nurse manager can better identify alternatives and trade-offs that would increase her or his willingness to abandon personal goals for the sake of total agency welfare.

MEMO CAPSULE

Methods for System Analysis

- Regression analysis: Mathematical
- Model building: Structural
- Simulation: Functional
- Linear programming: Logical
- Work sampling: Observational
- Flowchart: Diagrammatic

Techniques for Systems Analysis

The techniques used in systems analysis include regression analysis, model building, system simulation, linear programming, work sampling, work-distribution charts, flow diagrams, and forms analysis.

Regression analysis is a statistical technique in which data about past performance are used to describe system relationships and predict future system performance. Multiple regression analysis is a statistical technique for determining the relative importance of each of several factors that produce a particular outcome (Pedhazur, 1982). A *model* is a mathematical or diagrammatic representation of an actual entity or system. A model maker reproduces a problem system in miniaturized and manageable form, in order to experiment with alternative methods of system function. *System simulation* is the activation of a system model to reveal how the system would operate under changed conditions. *Linear programming* is a diagrammatic representation of a multistage process with an accompanying time line that is used to determine the optimum allocation of limited resources in a complex program (Fig. 4-3). *Work sampling* is an engineering technique in which a portion of an employee's work is randomly sampled in order to draw conclusions about the distribution of the employee's total work time among different activities. A *work-distribution chart* is a tabular presentation of tasks performed and time devoted to

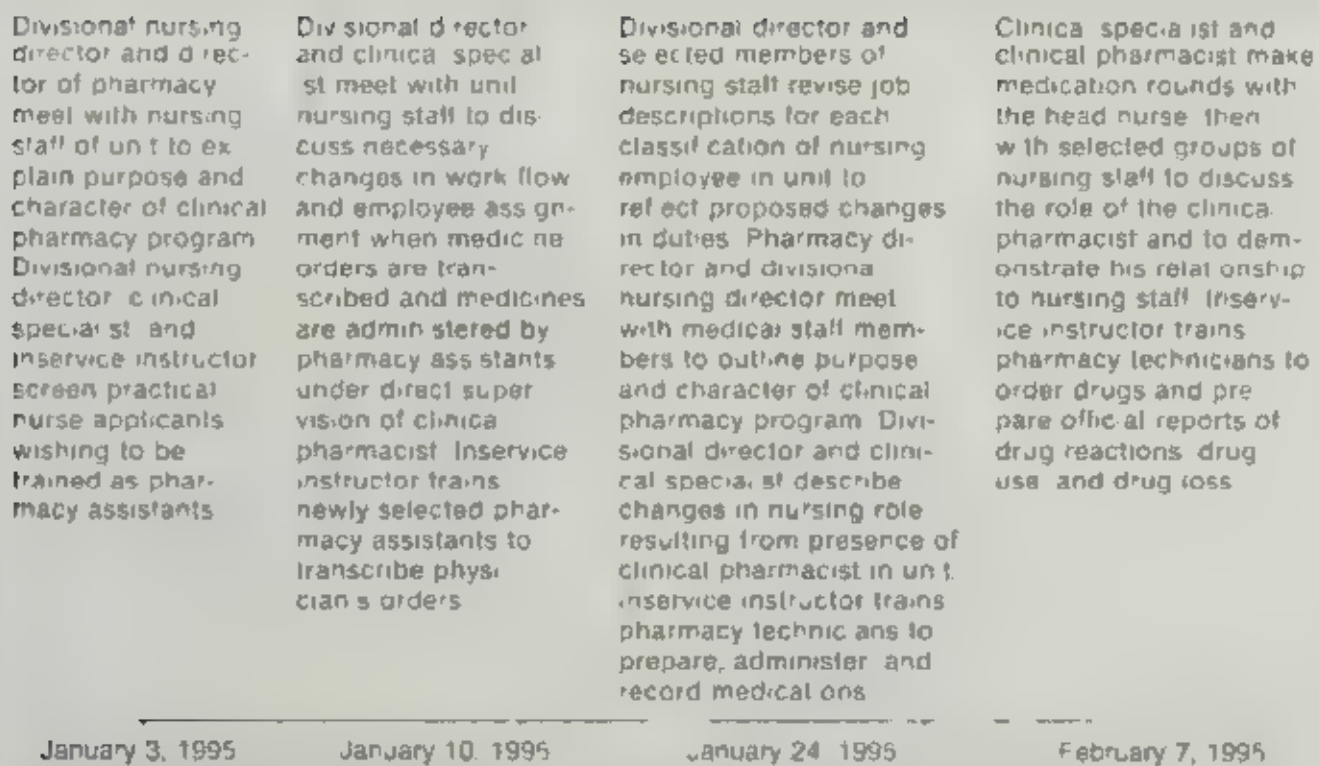


Figure 4-3 Linear program with time line for coordinating efforts of divisional nursing director, inservice instructor, and clinical specialist in effecting role change among nursing personnel of unit adopting clinical pharmacy program.

each task by every worker in a primary work group. Work-distribution charts are used to detect unnecessary duplication of effort or unfair distribution of work among members of the work force. A *flow diagram*, or flowchart, is a graphic representation of a complex process that indicates the number and sequence of steps in the process; number, origin, and destination of documents used throughout the process; personnel and departments taking part in the process; and specific functions of each system component. The purpose of a flowchart is to identify unnecessary steps, eliminate bottlenecks, and supply feedback loops when additional information or control is needed. *Forms analysis* is a systematic comparison of official forms with their associated systems, for the purpose of determining whether they are constructed to obtain all information needed for optimum system operation.

BASIC PRINCIPLES OF A SYSTEMS APPROACH

A set of 13 basic principles underlies a systems approach to nursing management.

1. A systems approach to problem solving requires investigating the whole situation, rather than considering one or two more obvious or troublesome problem aspects. For example, to reduce the excessive turnover of nursing personnel, a manager should examine the overall purpose of the health agency and the formal and informal structure of the nursing department before analyzing nurse-recruitment activities or data collected during exit interviews.

2. To be defined as a system, the portion of the world isolated for study must exhibit some predictability. Each system behaves in a characteristic manner because of the unique relationships among its parts. So long as system components remain the same and the system's environment is not radically changed, system behavior is predictable. For example, unless

there is change in the community's labor pool, in the orientation program for new employees, or in types of patients admitted for elective surgery, the surgical supervisor should be able to predict how many preoperative or postoperative surgical patients each newly hired nurse will be able to care for during a tour of duty.

3. In analyzing a system the nurse manager should work on the premise that, although each system is a self-contained entity, it is also part of another system of wider and higher order. For example, the processes of physical assessment and history taking are subsystems in the larger system of the nursing process.

4. The central objective of any system can be identified by the system operator's willingness to sacrifice other goals to ensure its realization. System maintenance is the central objective of most organizations, because under extreme stress organizations typically ignore (even suspend) production and services in order to defend the status quo and ensure system preservation.

5. Every system, whether living or mechanical, is an information system, in that data of some type are needed to select input, shape process, govern feedback, determine control, and evaluate output. In determining the appropriateness of each information bit in the system, the nurse should analyze the origin, destination, and function of the data, as well as the suitability of the symbolism used in transmitting information.

6. Although a boundary divides a system from its environment, systems theory decrees that an open system and its environment are highly interrelated. For example, a clique is a small group of workers that have isolated themselves to some degree from the total work group. However, feelings and behavior of clique members are strongly influenced by attitudes and behavior of coworkers who remain outside the clique. The more outsiders disapprove a clique member's behavior, the more the member will turn to other clique members for approval and the stronger will be his emotional attachment to the clique.

7. Although a systems approach requires that a situation be viewed as a whole, a highly complex system may have to be broken into subsystems so that each can be analyzed and understood separately before being reassembled into a comprehensive whole. The staffing system of a nursing department is easier to comprehend if it is first broken into the following subsystems: recruitment, induction, training, orientation, scheduling, measurement of nursing care needs, assignment, evaluation of care quality, and modification of assignment.

8. A system consists of a set of objects and their relationships. Of the two, relationships are of greater importance to the functioning of the system than the objects. The processes by which the parts of a complex human system are linked are role taking, communication, decision making, and balance (Ivancevich and Matteson, 1987). The character of the relationship between two system components is determined by the function of each. It is possible for the same collection of elements in approximately the same surroundings to serve completely different functions, thereby producing different relationships and constituting different systems. An in-service instructor or a nurse clinician may meet with a group of staff nurses on several occasions to convey information, develop skills, and inculcate attitudes. When the purpose of the give and take is to prepare newly hired staff nurses to perform tasks included in their job description, the session is part of the department's orientation system. When the purpose of the meeting is to provide opportunities for nurses to expand their professional abilities and qualify for job advancement, the session is part of the department's professional development system. When the purpose is to enroll the nurses in a union or take a strike vote, the session is part of the union's organizing system.

9. Because a system is a dynamic network of interconnecting elements, a change in only one of those elements must produce a change in all the others. In fact, even the element that initiates

a change in the system will be influenced by the system change.

10. When subsystems are arranged in series, as when output of one system becomes input for another, process alterations in any subsystem necessitate complementary alterations in related subsystems. When a decision is made to change recruitment and hiring policies to increase the proportion of practical to professional nurses in the staff mix, changes must occur simultaneously in orientation, scheduling, and assignment subsystems, for nursing service goals to be optimized.

11. All systems tend toward equilibrium, a balance of various forces operating within and on the system. Equilibrium is that state in which imposition of a small force on the system will result in modification; but when the force is removed, the system will return to its previous state.

12. The boundary of a system can be redrawn at will by a systems analyst, either to include certain environmental elements not previously considered as part of the system or to exclude certain previously included components. Changes in system boundary usually alter the function of selected subsystems and total system output. The personnel evaluation system in a nursing service department can be designed to include process surveys of certain nursing procedures, retrospective patient care audits, analysis of process recordings of nurse-patient interactions, and a paper-and-pencil test covering core nursing content. If the system boundary is redrawn to include, in addition to the foregoing elements, self-evaluation by the individual nurse or peer evaluation by the nurse's coworkers, a different judgment about employee adequacy is likely to result.

13. To function smoothly, a system must be strongly goal directed, governed by feedback, and capable of adapting to changing external circumstances. For a hospital's nurse staffing system to operate effectively, staffing goals must be clearly defined in terms of numbers and types of personnel to be supplied to each nursing unit

by shift; adequacy of assigned personnel must be evaluated through quality-assurance surveys and patient care audits; and personnel-recruitment and assignment methods must be adjusted to changes in labor pool and patient clientele.

MEMO CAPSULE

System Attributes

- Holistic
- Predictable
- Goal directed
- Data driven
- Compartmentalized
- Relational
- Unitary
- Changeable

INTRODUCTION OF NEW SYSTEMS

It is often a nurse manager's duty to initiate a new system within a nursing unit, division, or department. A new system may be needed, because there are so many problems in the older system that simply adjusting system elements will not achieve desired functioning. For example, in a hospital with a decentralized staffing system, each divisional director made a series of small adjustments in staffing forms and procedures to accommodate the agency's increasing use of registry nurses. Finally, it became apparent to several divisional nursing directors that a decentralized or divisional staffing system did not facilitate effective use of registry nurses. The chief problem with the decentralized staffing system was the fact that unit needs for nursing personnel changed rapidly, even from shift to shift, in intensive care units. It was necessary to order registry nurses one week in advance. The most economical use of registry nurses required that nurses supplied by the registry be freely movable among all hospital units. However, each nursing division was billed for the number

of registry nurses allotted to that division on the order date, and there was no mechanism for back-charging a different division when a registry nurse was reassigned at the last moment to compensate for an emergency staff shortage in a different division. Because divisional directors had to compete for scarce personnel funds and were criticized for "excessive" personnel expenditures, they were reluctant to share registry personnel with other divisions on days when low patient census decreased their own personnel needs. When the vice-president of nursing became aware that rivalry among divisional directors for scarce personnel dollars made a decentralized staffing approach unworkable, she replaced the decentralized system with a centralized system, whereby individual units or divisions would suffer no economic disadvantage by transferring unneeded nurses to busier units or divisions.

Another reason for instituting a new system is the introduction of new technology. The surgical staff of a hospital might decide that, to decrease postoperative morbidity and mortality among patients with chronic heart disease, such patients should be admitted to the intensive care unit 24 hours before surgery, so that electrocardiograms and cardiac output studies could be performed and a Swan-Ganz catheter could be inserted to obtain baseline data about right and left heart pressures. These data could then be used to guide postoperative fluid administration and respiratory therapy. If such a policy were instituted, it would be necessary for the nurse manager of the intensive care unit to establish new nursing care systems for these patients: a protocol for care of the preoperative patient with chronic heart disease; a procedure for assisting the physician with insertion of the Swan-Ganz catheter; a procedure for calibrating the Swan-Ganz transducer and obtaining central venous pressure, pulmonary artery pressure, and pulmonary capillary wedge pressure; and a procedure for assisting the physician with cardiac output studies.

In either situation—development of prob-

lems in an older system or development of new technology—it is the nurse manager's responsibility to decide when a new system is needed. The manager is also responsible for guiding subordinates as they establish overall goals for the system, set performance standards for operators of the new system, allocate financial, material, and personnel resources needed to make the system work, and control the system to ensure proper functioning.

DESIGNING THE SYSTEM

Occasionally, the nurse manager and selected staff members can design a new system or redesign an older system without help from outsiders. However, if the system is complex or quantification of system elements is required, a systems analyst may be needed to design appropriate feedback loops or construct a working model with which system effects can be explored before implementation.

A systems analyst studies a system in two ways: study of system outcomes, which provides a gross or macroscopic view of the system; or study of system processes, which provides a detailed view of the system. In studying system outcomes, the analyst examines the degree to which system output matches system goals, without regard for functioning of system elements. In process analysis the analyst defines intermediate outcomes of the system and the manner in which each serves as input to parallel or serially oriented subsystems. Before designing a new system, the manager or systems analyst should answer the following questions:

1. What is the overall purpose of the system?
2. What results are wanted from system operation?
3. What factors can alter those results positively or negatively?
4. What effects can be expected from changing each of the factors?
5. In what sequence must these factors interact to yield the desired results?

In identifying requirements for a new nursing

or management system, the manager should consider a multiplicity of factors, among which are system goals, system environment, available financial and personnel resources, clients to be served, services expected by clients, consistency of clients' demands for the service, long-term strategy to initiate the system to keep it operative, activities of system elements, training needed by system operators, time relationships among system elements, and cross effects of this system with others. If the nurse manager has not been trained in a systems approach to management responsibilities, he or she may need a systems analyst's help to explore information about system purpose, elements, environment, and outcomes.

In identifying the factors that affect system performance and predicting how each will affect system outcomes, the manager may have to develop a model of the system and alter one system element after another to determine how variations in system elements will change output. If the system is expensive to initiate or difficult to modify, the manager should simulate system operation before it is implemented, in order to work out as many "bugs" as possible before the system is integrated into agency operations.

Principles of System Design

Several principles should be observed when designing nursing management systems. First, the nurse administrator and manager should work closely with the systems analyst who designs the system. If the system is situation-specific, the analyst must rely on the operating nurse manager for information about nursing objectives, service requirements, and such system constraints as time, space, specificity, and user sophistication.

Second, to streamline a nursing system, the role of each system component should be specified in detail so that all the actions needed to reach the desired goal have been included in the throughput process and duplication of effort is avoided.

Third, if system output is critical to agency

success, each system signal and command should be followed by feedback to ensure that the signal was heard and prescribed action taken (Optner, 1965). Because timely and accurate execution of a medication order is crucial to a patient's welfare, the procedure for posting a medication order should require the nurse who transcribes the order to sign her name beside the order to signify that it has been processed. The procedure for medicine administration should require the nurse who administers each dose to record date, time, drug name, dose, route of administration, and the nurse's signature immediately after the drug is given to the patient.

Fourth, the intricacy of system design should be adjusted to the system's importance to total agency functioning. The overall system of nursing care for a nursing department should be broken into subsystems and translated into specific work assignments for individual nursing employees. The nursing system for the nursing department as a whole can be expressed in general fashion (Table 4-1). However, each performance system should become progressively more concrete and specific as system design moves closer to the actual work of the agency (e.g., to nursing care given by a primary nurse to a specific patient). The system to be followed by a staff nurse in caring for a specific patient (the nursing process) should be diagrammed in greater detail than the nursing system for the health agency as a whole (Table 4-2).

Although a systems approach to nursing management is advocated in this book, managers should realize that a systems approach to agency operations has disadvantages, as well as advantages. A systems approach encourages nursing administrators and managers to resolve problems that develop at the interface between subsystems of the total agency. A systems approach clarifies the flow of energy and information through the total agency's throughput process and facilitates integration of diverse ideas, employees, and objects in service of the

Table 4-1 System Design for Nursing Department as a Whole

Input	Throughput	Output
Labor of 1,000 RNs 500 LPNs 250 aides	Recruitment Orientation Assignment Scheduling	Protective, therapeutic, and supportive interventions against patients' illness, disability, and loss
Institutional and departmental goals	Nursing care planning	
Policies	Nursing procedures	
Protocols	Supervision Coaching Nursing audit Evaluation of personnel	

agency mission. A systems approach to management encourages graphic representation of complex ideas and processes and, so, improves communication among workers in different disciplines and specialties. A systems approach encourages quantification of inputs and outputs to various subsystems, which encourages greater cost consciousness in employees.

MEMO CAPSULE

Advantages of Systems Approach

- Highlights input-output relationships.
- Clarifies process steps and channels.
- Identifies optimum control points.
- Facilitates broad scale, multidirectional change.

Table 4-2 System Design for Nursing Care of a Specific Patient

Input	Throughput	Output
Information about health history	Making a nursing diagnosis	Decreased pain and discomfort
Information about physical and psychological assessment	Preparing nursing care plan and goals	Improved morale
Principles of biological, physical, and social sciences	Administering medicines	Decreased incidence of symptoms
Knowledge of pathophysiology, therapeutics, pharmacy, surgery, etc.	Administering treatments delegated by physician	Avoidance of complications
	Administering nursing measures indicated by patient's condition, emotional status, and response to treatment	Increased self-sufficiency
	Instructing patient and family concerning illness, treatment, self-care, and adjustments in life-style	

Following are possible disadvantages of a systems approach to management, but most of these negative effects can be avoided through careful planning. A systems approach to management can lead to increased centralization of policy making (Hodge and Anthony, 1984). A holistic view of an organization encourages some agency administrators to retain strong decision power over subsystem inputs, throughputs, and outputs in the mistaken belief that strict control is needed to obtain maximum subsystem support for overall agency goals. It is possible, too, for a systems approach to obscure a manager's view of the extremely complex relationships among various agency elements. The

power relationships between line and staff officers in a functionalized line and staff nursing organization are complex and continuously changing. A systems diagram of input, throughput, and output of the nursing research process or quality-improvement process in an agency where a nursing staff officer is responsible for each function will fail to reveal the subtle power shifts between staff and line personnel that occur while they pursue various research and quality goals. Perhaps the most serious disadvantage of the systems approach is the fact that some nurse managers find a systems view too abstract an approach to understand the intricacies of real-life nursing processes, such as budget prep-

RESEARCH BRIEF

Leadership Behavior of Chief Nurse Executives

Theory: Leadership effectiveness depends on ability to vary amount of task and relational behaviors to fit workers' maturity level.

Purpose: Determine whether chief nurse executives (CNEs) use a leadership style that promotes staff nurse retention.

Sample: The CNEs of 66 JCAHO-accredited hospitals in five counties in San Francisco Bay area

Instrument: Leader Effectiveness and Adaptability Description-Self (LEAD-S). Twelve management situations. Subject indicates one of four possible responses (four different leadership styles) to each: "Telling" style = high task, low relational behavior; "Selling" = high relational, high-task behavior; "Participation" = high relational, low-task behavior; "Delegating" = low-task, low relational behavior.

Results: "Selling" was the dominant leadership style for 54 percent of subjects, and "Participating" was the dominant style of 30 percent. Subjects' mean effectiveness score (choice of the leadership style most appropriate for workers' maturity level) was 65, or high average

Application: "Telling" is most effective for immature (inexperienced, unwilling) workers; "delegating" most effective for mature (highly skilled, highly motivated) workers; "selling" and "participating" most effective for workers of moderate maturity. Of the four styles, delegation most facilitates staff nurse autonomy and, so, best prepares staff nurses for management responsibility. The nurse shortage may have caused studied CNEs to forgo long-range educational benefits of "Delegating" (prepare future managers) for the short-range staffing benefits of "Selling" and "Participating" (high relational behaviors of the latter styles are likely to increase staff nurse job satisfaction and retention). Often, workers' maturity levels vary from one task to another. Therefore, nurse managers should self-assess preferred leadership style, cultivate behaviors of underused styles, evaluate subordinates' maturity level for different tasks (physical care, emotional support, teaching, planning, communication, etc.), and consciously adjust leadership style to fit workers' experiential and motivational levels.

Source: Adams, C. Leadership behavior of chief nurse executives. *Nursing Management* 21:8, 1996, pp. 22-23.

aration, personnel procurement, staff development, or labor contract negotiation. Managers who lack experience in budgeting, accounting, and statistics are likely to feel threatened when asked to quantify inputs and outputs for subsystems that they control. Timely assistance from a systems specialist, a finance officer, or a statistician should relieve some of these anxieties and persuade the reluctant manager to explore a systems view of her or his responsibilities.

MEMO CAPSULE

Disadvantages of Systems Approach

- Centralizes decision making.
- Obscures differences, disagreements.
- Depersonalizes human interactions.

SUMMARY

The total nursing management process and each management function can be perceived as a system consisting of several inputs, one or more throughput processes, numerous outputs, and multiple feedback processes between outputs and throughput, outputs and inputs, and throughput and inputs. When management malfunctions, in the major system or a subsystem, analysis of the interrelationships among system elements will usually reveal imbalance, obstruction, or asynchrony at some point in the system. Usually, when the cause for system malfunction is accurately diagnosed, the problem can be eliminated or relieved by appropriate managerial interventions.

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Budgeting

When it is a question of money, everybody is of the same religion.

VOLTAIRE

OBJECTIVES

After reading this chapter, you should be able to.

1. Enumerate three major sections of the budget for a nursing unit, and describe three items included in each section.
2. Describe advantages and disadvantages of the following types of budget: line-item, performance, planning program, and zero-base.
3. Differentiate between direct and indirect labor costs, and specify one way to reduce each.
4. Identify in a nursing unit's budget variance report those areas of overspending that warrant immediate attention from the responsible manager.

The economic welfare of a health agency depends on effective budgeting for nursing department operations, because the nursing budget represents about one-third of total operating costs for most agencies (Gabrielson and Lund, 1985). Managers at all levels of the nursing hierarchy should be responsible for budget preparation and implementation.

The budgeting procedure serves both planning and control function (Fig. 5-1). In recent years nursing budgets have become highly detailed and closely scrutinized by agency admin-

istrators, because growing demand for care has caused health care costs to increase more rapidly than the overall inflation rate. Pressures to provide more skilled and comprehensive nursing care at lower cost have forced managers to implement cost-control measures. Outcome-oriented goals, zero-base and flexible budgets, and cost accounting can help to decrease nursing expenditures. Measurable, behavior-oriented nursing goals define nursing work to be done, resources needed to perform the work, and budgetary plans to acquire those resources (Deegan

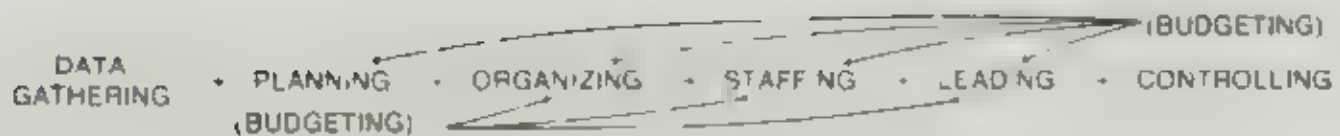


Figure 5-1 The budgeting procedure in the nursing management process.

and O'Donovan, 1984). Zero-base budgeting requires the operating manager to justify expenditures for each activity every year, so it encourages the elimination of unnecessary and ineffective activities and frees scarce resources for more deserving projects. Flexible budgets foster cost control by permitting more accurate performance evaluation than is possible with traditional budgeting. Cost accounting, which measures costs of specific actions, facilitates accurate evaluation of expenditures, the first step in controlling runaway costs.

HISTORICAL BACKGROUND

Line-Item Budget

Before World War II, the traditional, or line-item, budget used in business organizations was also used in the health industry. In the traditional budget method, the previous year's spending level is used as a base, projected salary increments and materiel price increases are grafted on the base, and the cost of proposed new programs is added to the package. Thus, the traditional budget is based on the unproved assumption that the agency's current expenditure level is appropriate. It is possible for a poorly designed, poorly executed, wasteful program to continue unchallenged for many years under a line-item budget, until a critical shortage of operating funds forces agencywide budgetary cutbacks.

The traditional, or open-ended, budget is rarely used in health agencies today, because it is economically wasteful and diminishes the manager's responsibility for cost containment. If a unit manager or divisional director develops a budget request by taking current expenditure level, expanding it to reflect the inflation rate, adding the cost of a new program or two, and

passing the budget request upward through organizational hierarchy for consolidation and presentation to the top executive, the manager is "passing the buck" for financial decisions to nonclinical superiors. If all operating managers prepare unit budget requests in this fashion, the aggregate funding request is likely to be unaffordable. Then the top executive, who lacks the clinical expertise needed to evaluate the relative worth of conflicting requests, must make arbitrary cuts in all requests. The result is that funded activities are likely to be unbalanced, uncoordinated, even antagonistic.

A line-item budget is primarily a device for controlling expenditures; as such, it is of limited use in planning and decision making. When current expenditures levels are adopted uncritically as a base for subsequent budget requests and top executives scrutinize only major increases and decreases from that level, analyses are limited to a small portion of budgeted dollars. Thus, it is possible for poorly planned and poorly managed functions to escape critical scrutiny by those who dispense funds.

Performance Budget

In 1959 the Hoover Commission on Organization of the Executive Branch of Government recommended that the federal government replace traditional open-ended, or line-item, budgets with performance budgets (Merewitz and Sosnick, 1977). A performance budget is organized in terms of *functions* rather than items of expenditure. The advantage of a performance budget is the fact that it increases managerial accountability for spending and makes it possible to identify how much is spent for each agency program. However, performance budgeting is retrospective in nature, so it is no more

useful than a line-item budget for planning purposes.

Planning Program

Astute administrators recognized that the budget should be used to plan as well as to control expenditures. Therefore, Robert McNamara introduced the *planning* program budgeting technique in the U.S. Department of Defense during the early 1960s. Unlike the performance budget, the planning program budget is a prospective or planning device that is organized to reflect total costs for each organizational program.

Zero-Base Budget

In 1968 Peter Pyhrr, of Texas Instruments Company, introduced zero-base budgeting as a refinement of the planning programming budgeting technique (Pyhrr, 1973). Jimmy Carter later used the zero-base budgeting technique both as governor of Georgia and as president of the United States (Megginson et al., 1983). The zero-base budget requires that all expenditures for every program be analyzed and justified from scratch each year, so all programs, old and new, compete on an equal basis for scarce funds.

Utilization Review Program

During the 1980s health care costs rose at an alarming rate. The health care cost crisis, which threatened to bankrupt the Medicare system and close many small hospitals, resulted from many causes: health workers' salary increases; expensive state-of-the-art health care technology; high malpractice insurance rates; overuse of complex diagnostic and surgical procedures; and rising consumer demand for disease cures and wellness programs (Luthans and Davis, 1990). The Utilization Review system, Diagnosis-Related Groups (DRG) prepayment system for Medicare hospitalization costs, and "managed care" systems such as Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs) were used to

curb exploding health care costs. The Utilization Review program includes determining appropriate hospital length of stay and necessary treatments for various illnesses and conditions and reviewing patient medical records on admission and at intervals during hospitalization to ensure that the patient receives appropriate care. Health Maintenance Organizations are health care organizations that provide health promotion and illness care on a prepaid basis, with conservative use of hospitalization and expensive diagnostic and treatment procedures. A PPO is a group of physicians who, in cooperation with a hospital, contract with a business organization to provide health care services to the organization's employees at discounted rates, in exchange for high patient volume during the contract period. The goal of these cost-containment schemes is to limit each patient's diagnostic and treatment measures to the fewest, least expensive procedures that will relieve patient symptoms, avert costly complications, and return the patient to fullest possible function in the shortest possible time.

In order to maintain tighter control over health care spending, many health agency administrators have decentralized budget planning and control responsibility to the manager in charge of each cost center, such as the head nurse of a nursing unit (Hodges and Potect, 1991). With this change in role responsibility, the head nurse is expected to demonstrate expertise in financial, clinical, and personnel management. In some agencies nurse managers are given rudimentary training in budgeting and accounting techniques by the agency's chief financial officer. In other agencies nurse managers are offered tuition reimbursement for successful completion of selected financial management courses at a local college.

PURPOSES OF BUDGETING

Budgeting is a complex task, because it serves both planning and control functions, which require different orientations to change. Planning requires an expansive or innovative stance,

whereas control requires a conservative stance. Furthermore, early stages of planning focus on general and imprecise goals, whereas control focuses on specific criteria and comparisons. To reconcile innovative and conservative viewpoints and balance forward- and backward-looking orientations, the manager must use analytical skills and adopt a long-range view of goal achievement.

MEMO CAPSULE

Budgeting Purposes

- Planning: Forward-looking, expansive, imprecise
- Controlling: Backward-looking, conservative, precise

The primary purpose of budgeting is to ensure the most effective use of scarce financial and nonfinancial resources. To accomplish this purpose, the budget must allocate available resources so as to achieve high-priority goals and must set standards for measuring outcomes of expenditures. Secondary purposes of budgeting include coordinating efforts of various departments, establishing a frame of reference for managerial decisions, and providing a criterion for evaluating managerial performance. However, in evaluating managerial performance, executives should recognize that the goal of budgeting is to *control*, not necessarily to *reduce* costs. Budgeting, cost accounting, and cost reduction are separate operations, although they use similar tools and terminology. Budgeting is a management function that consists of providing employees with whatever is needed to perform assigned tasks. Cost accounting is a support service that provides managers with information for budget planning and evaluation. Cost reduction is an adjustment function, that is used to conserve scarce resources and ensure agency survival.

A valuable side effect of the year-round budgeting process is communication of objectives, plans, ideas, and concerns among managers in different disciplines or specialties and between first-level, mid-level, and top-level managers. When the budgeting process is decentralized, responsibility for budget preparation is a management training tool, because budgeting activities habituate managers to critical analysis as a basis for policy decisions. Another valuable side effect of the budgeting process is communication of agency goals in financial terms. The astute manager knows that verbal statements of agency goals are ineffective until funds are committed for goal achievement.

DEFINITIONS

To carry out budgeting responsibilities, the nurse manager should be familiar with the following terms. *Economic resources* are sources of support that are in short supply, such as money, material, or employees. The objective for budgeting is to ensure attainment of desired goals by using the fewest possible resources. Resources are sometimes called assets and may be tangible or intangible. Money is a tangible asset, whereas agency reputation and employee morale are intangible assets.

Budgeting is the allocation of scarce resources on the basis of forecasted needs for proposed activities over a specified time period. The budget document is a numerical expression of an agency's expected income and planned expenditures for a specified period of time. Usually, an organization's budget is divided into three sections: salaries, capital expenditures, and operating expenses. A financial plan is a scheme for allocating scarce resources among competing demands. A strategic financial plan is a scheme that, by anticipating future conditions, directs future expenditures so as to maximize organizational advantages. An *operational budget* is an agency's financial plan for achieving short-range goals over the next 12-month period.

A *unit of service* is a specific measure of

health care work that a department delivers to customers or clients (Strasen, 1987). The following units of service have been used to measure nurses' productivity: patient-days, home visits, clinic visits, surgical procedures. A *program* is a series of activities that function together to facilitate attaining some desired goal. Four types of expenditures may be defined for a program: past expenditures, permitted expenditures, proposed expenditures, and predicted expenditures. Past expenditures are funds that were expended for the program during a previous budget cycle. Permitted expenditures are funds that have been authorized for application to the program by the agency's chief executive or the governing body. Proposed expenditures are funds that have been requested by an operating manager to support the program during a future budget period. Predicted expenditures are costs for the program that have been forecasted for one to five years by the manager responsible for its administration.

Financial control is the process of tying operating managers to the financial plans and policies of top executives. *Allocation* is the process of distributing available resources in the most effective, least wasteful manner.

Costs and Expenditures

Cost is the expenditure required to achieve a desired object. The *real cost* of a project or program is the sacrifice resulting from the agency's inability to execute an alternative program or project. The *total cost* of an object, service, or program includes all significant cost elements—monetary, property, and personnel resources—that are consumed to acquire or achieve the object, service, or program. Any element of total cost can be direct or indirect. In calculating personnel costs, the manager must distinguish between direct and indirect labor costs. *Direct labor costs* are wages paid to employees who are directly engaged in productive output, such as providing service to clients. Direct costs vary in direct proportion to amount of service rendered. *Indirect labor costs* include all labor costs not

included in direct costs, such as salaries for supervisors, administrators, and consultants. Indirect labor costs are necessary for agency operations but do not contribute directly to work output and do not vary in proportion to the volume of service delivered. *Fixed costs* are costs that do not change with a change in level of service generated (Roehm and Labarthe, 1987), such as salary for a unit head nurse.

Semivariable costs are costs that change as volume of output changes but not in direct proportion to the change in output. For example, the cost of in-service training for nurses changes with an increase in nursing care volume and number of nurses hired. However, the increase in in-service costs does not exactly parallel the increase in care delivered because nurses can be oriented and trained in groups. *Period costs* are associated with a period of time rather than a level of activity. Agency payments for liability insurance for nursing personnel is a period cost, because each premium purchases liability coverage for a specified time period. *Committed costs* are expenses that are necessary to maintain the agency's legal and physical existence, or costs over which managers have little control. Building rents and institutional licensing fees are examples of committed costs. *Programmed costs* are expenses that are subject to managerial control but relatively unconnected to current activities, such as nursing research costs. *Overhead costs* are expenses that are essential to agency operations but cannot be directly related to work volume or service delivery. In addition to such indirect labor costs as supervisory and managerial salaries, overhead expenses include the costs of heat, light, housekeeping, and protective services.

Capital expenditures are outlays for large purchases of building and equipment that affect operations of more than one unit and commit the agency to a particular course for several years. In most agencies, capital expenditures are classified according to the item's cost and its life expectancy.

A *cost center* is the smallest area of activity

in the agency for which costs are accumulated. For a nursing department budget, each cost center should be no larger than a single nursing unit or section, so the cost center will represent an area in which a single manager is responsible for day-to-day functioning and can control expenditures.

Cost-Benefit Analysis

Cost-benefit analysis is a procedure by which all costs resulting from installing and operating a system are determined and converted to a dollar amount, all resulting benefits of the system are determined and converted to a dollar amount, and a ratio is calculated to reflect the relationship of costs to benefits (Schmied, 1979).

Each increment of variable cost does not yield a comparable increment in work output. Therefore, managers should use break-even analysis to determine the break-even point for each program. The break-even point for an expenditure is that level of utilization where revenue from services exactly equals cost (Pelfrey, 1990; Schermerhorn, 1984). As additional employees are added to a nursing unit, the service volume increases for a time. However, as more personnel are added, the work increment of each additional employee gradually decreases. Finally, assignment of an additional workers causes *decreased* work output for the group, probably because excessive personnel create communication problems and interpersonal friction. The break-even point is that point on the ascending limb of the personnel utility curve where personnel salaries exactly equal service revenues. Knowing the break-even point for a program or service enables the manager to determine the minimum scale of the operation that will be profitable, given the agency's fixed costs (Carney et al., 1989).

Accounting Principles

The nurse manager must confer with financial managers and accountants at several points during the budgetary cycle and should therefore

be familiar with accounting concepts and principles. The principle of conservatism refers to the fact that accountants tend to understate the monetary value of any asset evaluated for inventory purposes. The accrual concept dictates that agency revenue be recorded when earned. That is, income from patient fees should be recorded when the service is rendered rather than when the bill is paid. The accrual concept also indicates that agency expenses should be recorded at the point at which they contribute to operations. That is, the cost of supplies should be recorded at the point when they are used for patient care rather than when they are delivered to the agency or when the vendor's bill is paid. When the accrual concept guides an agency's financial reporting system, the manager must interpret year-to-date expenditures and uncommitted balance figures carefully in order not to exceed budgetary allowances, because reported totals will not reflect unrecoverable fees for patient services and as-yet-unpaid bills for salaries and supplies.

TYPES OF BUDGETS

The total agency budget consists of three sections: manpower budget, capital expenditure budget, and operating budget. The manpower budget includes wages and salaries paid to regular agency employees and fees paid to outside registries for temporary workers. The capital expenditure budget includes purchases of land, buildings, and major equipment of considerable expense and long life. In some agencies a capital

MEMO CAPSULE

Budget Sections

- Manpower: Wages and benefits for regular and temporary workers
- Capital: Land; buildings; expensive, long-lasting equipment
- Operating: Supplies, minor equipment, repairs, overhead

expenditure is defined as any item costing more than \$200 or having an expected life of more than five years (Porter-O'Grady, 1979). The operating budget includes the cost of supplies, minor equipment, repairs, and overhead expenses.

Agency budgets may be of several types, differing in underlying philosophy. An *incremental budget* is one based on estimated changes in present operations, plus a percentage increase for inflation, all of which is added to the previous year's budget (McGrail, 1988). An *open-ended budget* is a financial plan in which each operating manager presents a single cost estimate for what is considered optimal activity level for each program in the unit, without indicating how the budget should be scaled down if less funding is available. A *fixed-ceiling budget* is a financial plan in which the uppermost spending limit is set by the top executive before unit and divisional managers develop budget proposals for their areas of responsibility. Ceiling setting by the top executive forces each manager to weigh relative merits of alternative programs. A *flexible budget* is based on the fact that operating conditions rarely conform to expectations. Therefore, a flexible budget consists of several financial plans, each for a different level of program activity. The top executive can select the expenditure plan that, in combination with other agency programs, maximizes organizational goal achievement. Then, if environmental conditions change markedly during the budget year, the top executive can shift spending levels for particular programs up or down to effect higher or lower productivity levels (Hillestad, 1983). A *roll-over budget* is one that forecasts program revenues and expenses for a period greater than a year, to accommodate programs that are longer than the annual budget cycle (McGrail, 1988).

A *performance budget* is based on functions, such as direct nursing care, in-service education, quality improvement, and nursing research. A *program budget* is one where costs are computed for a total program, such as an ambula-

tory surgery program or a home care program. A *zero-base budget* requires the manager to justify each cost of every program, both old and new, in every annual budget preparation. A *sunset budget* is designed to "self-destruct" within a prescribed time period to ensure the cessation of spending by a predetermined date (Porter-O'Grady, 1979).

Program Budgeting

Of the several types of budgets used, a planning program budget built on a zero-base budget best fits the needs of a cost-conscious nurse manager. In this budget, costs must be classified by program (i.e., in relation to objectives) accurately enough to permit multyear planning (Cushman, 1984). Therefore, detailed descriptions of program activities are needed, together with cost analysis of the preferred program and alternative methods for realizing the same objective. It is easiest to prepare a planning program budget for a nursing department when the entire agency uses a program budgeting approach. Even when this is not the case, classifying costs by program enables a nurse manager to determine how much is being spent to realize each nursing department's objectives. This knowledge stimulates managers to seek less expensive alternatives to replace programs that exceed cost standards.

The principle underlying program budgeting is the fact that the manner of classifying financial information guides managerial decision making. Computing costs for each program gets the managers used to examining expenditures from a systems viewpoint, analyzing the amount of financial input required to produce a given volume of patient service under varying conditions of throughput (nursing care delivery methods). Program budgeting and systems analysis of costs encourage managers to design feedback loops to monitor throughput processes, a requisite for cost control.

It is pointless to develop comprehensive, long-range plans for nursing service operations if the agency's budgeting planning cycle is only

a year in length. Whereas the traditional line-item, open-ended budget is planned for one year, the program budget has a longer time frame, extending from two to five years into the future.

The planning program budget is characterized by a multiyear approach. However, detailed fiscal planning is done for only the first year of five, and progressively less detailed plans are written for each successive year into the future. At the end of each annual budget cycle, the budget for the forthcoming year is developed in detail, and plans for the second, third, fourth, and fifth years are updated accordingly.

The program budgeting approach acknowledges that, when financial control is focused on minute subsystems (as in the line-item budget), the manager is discouraged from seeking more effective alternatives for current programs. On the other hand, when control is focused on utilizing the least possible input to realize the greatest possible output, managers are stimulated to measure outputs of alternative approaches.

In the planning programming budget approach, planning activities are highlighted during the budget-preparation stage, and evaluation and control activities are highlighted during the budget-implementation stage. Because the budgetary process follows a multiyear cycle, some aspects of evaluation and control of the current-year budget occur during budget preparation for the forthcoming year, and some planning for the following year's expenditures occur during budget implementation.

The planning program budget differs from the traditional line-item and performance budgets, because both objectives and methods are adjustable. For each agency goal, several alternative programs (each yielding a different volume of service) are "costed out." Cost-benefit analyses are performed to determine which level of activity is most economical. Then the top executive funds the program-objective package most compatible with agency goals and resources.

Advantages of program budgeting

The principal advantage of program budgeting is that it educates managers to the constraints that limit spending. In detailing activity costs for each program, the manager learns how labor costs are affected by union contracts, governmental regulations, and manpower availability; how operating expenses are influenced by technological advances, nursing education programs, and organizational structure changes; how capital expenditures are related to medical practice patterns and programs of competitive agencies. Another advantage of program budgeting is the manager's ability to clarify the financial consequences of expanding or contracting a particular service program.

Disadvantages of program budgeting

The principal disadvantage of planning program budgeting is the fact that it encourages centralized decision making. Many quality-improvement programs cut across departmental or divisional lines. The decision to fund a cross-department program can be made only by top executives. The result is that budgetary authority and decision making are centralized in a few executives, who lack firsthand knowledge of direct patient care issues. In its ideal form, planning program budgeting centralizes program planning in top executives but relegates control responsibilities for service programs to middle management.

Other problems associated with program budgeting include the reluctance of health professionals to accept responsibility for financial accountability, the inability of health professionals to describe clinical programs in terms that financial experts can understand, and the difficulty in identifying health care outputs that can be measured in financial terms.

The Budgeting Cycle

The nurse manager should use a systems approach in designing and implementing a planning program budgeting cycle as follows:

1. Agency goals are reviewed to identify activities of highest priority, because these are most likely to receive funding.
2. Objectives are reviewed for existing programs and written for proposed programs to ensure that achievement of these objectives will support agency mission.
3. Existing programs are revised and proposed programs designed to maximize goal achievement.
4. Labor, capital, and operating expenses are computed for each program, old and new.
5. Alternative methods are identified for realizing designated objectives, and the price of each alternative is determined.
6. Comparisons are made to determine which alternative is most cost-effective.
7. A budget request is developed that details a fiscal plan for the preferred program, indicates alternative methods for meeting the same objective, and explains why the recommended program is preferred.

To select one from several approaches to a chosen objective, a manager must weigh the suitability and feasibility of each alternative. The suitability of a particular program depends on the degree to which program philosophy, design, and outcomes support the agency's mission, policies, and value structure. An ambulatory surgery program might not be a suitable addition to a small-town long-term geriatric hospital with a large catchment area. To determine the feasibility of a particular program, the manager should test the program on a single nursing unit. Before instituting primary nursing or nursing case management throughout the entire hospital, the vice-president of nursing should test the new type of assignment on one general and one intensive care unit for a long enough period to identify its advantages and disadvantages in that agency.

It is impossible to foresee all events and conditions that can affect health agency functioning. Therefore, a nurse executive must sometimes submit a supplementary budget-item re-

quest or proposal at some time other than the regular budget-submission period. Franks-Joiner (1990) points out that a nurse executive may use a single-domain, a dual-domain, or a systems perspective in presenting a supplementary budget request for the top executive's approval. When using a single-domain perspective, the nurse executive presents her or his supplementary budget proposal to reflect *either* a nursing or a management viewpoint. With a dual-domain perspective, the nurse executive bases the supplemental budget proposal on nursing *and* management goals simultaneously. When using a systems perspective, the executive integrates nursing and management concerns into a unified set of goals that reflect total agency welfare. In a study of 15 teaching hospitals, Franks-Joiner (1990) discovered that hospital administrators approved 100 percent of supplemental nursing budget proposals presented from a systems perspective, 92 percent of proposals submitted from a dual-domain perspective, and only 76 percent of proposals submitted from a single-domain perspective. The researcher concluded that taking a systemwide or agencywide perspective of the interaction of nursing and management goals gives a nurse executive a tactical advantage during budget negotiations.

Zero-Base Budgeting

Increasingly, health agencies are using the planning program style of budgeting. Many of those who use program budgeting require that each year's budget request be designed from a zero base. To begin from a zero base, the operating manager must justify all budget items in detail each year and defend each expenditure from a cost effectiveness standpoint. To justify expenditures of ongoing programs, a manager must evaluate each program annually. Program evaluation consists of analyzing the demand for the program, determining the optimum level for program operation, estimating program benefits to clients, identifying alternative and less expensive methods for program delivery, selecting

preferred method of program delivery, and calculating total program costs for the operating period (Deegan and O'Donovan, 1984). The manager should explain reasons for recommending the selected program-delivery method and provide evidence of her or his ability to manage the program effectively.

Construction of a zero-base budget is extremely time-consuming, because each service program must be described in detail and subjected to cost analysis. To provide accurate cost data about a service program, the manager must list all activities associated with the program; indicate which classification of worker will perform each activity; specify the frequency, rate, or duration of each activity; calculate the amount of employee time to be spent in each activity for the expected number of patients; calculate total program cost by multiplying the wage rate of involved personnel by the time to be spent in each activity; and then summing costs across all worker categories. Similarly detailed calculations are necessary for the program's equipment and supply needs.

Program budgeting from a zero base is a type of decentralized budgeting, because the burden of proving need for each expenditure is shifted from top executive to the operating manager responsible for the cost center that provides the program. However, the operating manager's responsibility for designing a program budget does not relieve top executives of financial accountability. Before operating managers design individual program budget requests, top executives must decide which programs the unit and divisional managers are to develop decision packages for. Top executives must also select indicators for weighing desirability of the alternative programs described by lower-level managers. For example, a hospital administrator and vice-president of nursing may direct a divisional nursing director to develop a decision package for a psychiatric day care unit; another to develop a decision package for a diabetic teaching clinic; another to develop a decision package for an ambulatory surgery unit; and

another to develop a decision package for a high-risk infant intensive care unit.

Peter Pyhrr describes zero-base budgeting as an educational process that strengthens managers at all levels of an organization and promotes the development of the management team (Pyhrr, 1973). Zero-base budgeting controls costs, because it develops a sense of personal responsibility in middle- and lower-level managers. It is lower-level managers who actually spend the agency's financial resources, because they control day-to-day activities relating to supply distribution, equipment use, and personnel assignment. Of all managers, first-level managers are best able to develop zero-based budget decision packages, because they have firsthand knowledge of agency operations and can judge the feasibility of alternative programs.

Pyhrr points out that zero-base budgeting is not for the faint-hearted. He believes that managers who are overly concerned about their survival in an agency try to keep a low profile so as to avoid criticism. Such managers find zero-base budgeting dangerous, because it exposes such managerial faults as poor planning, indecisiveness, inadequate supervision of subordinates, and reluctance to discharge unproductive workers. Zero-base budgeting is not well suited for a manager who likes to fly by the seat of the pants in directing activities either. A patient and objective fact finder is required to perform the detailed cost analyses needed to choose the most cost-effective of several programs.

Zero-base budgeting is an effective staff-development tool, because it encourages managers to innovate. Innovation can be fundamental or associational. Fundamental innovation, or discovery of basic principles, is rare. Few managers are capable of this type of creativity. Association, or linking two seemingly unrelated ideas, is achieved by shuttling, rearranging, uncovering, and recombining previously unconnected ideas. Association has produced valuable health care developments. Most nursing managers are capable of innovating improved health care methods through association. Perhaps Mildred

Montag developed the idea for the Associate of Arts nursing program by juxtaposing the notion that instructional quality is higher in an educational than a service institution with the observation that junior colleges specialize in preparing workers for highly skilled technical occupations.

Advantages of Zero-Base Budgeting

The chief advantage of zero-base budgeting is that detailed cost analyses and generation of alternative methods encourage operating managers to develop financial skills and accept personal responsibility for conserving resources (Hillestad, 1983). When zero-base budgeting is well entrenched, the operating manager is likely to perpetuate the evaluation of operations that begin during budget preparation. Consequently, cost analyses are performed throughout the budget cycle. Other advantages of zero-base budgeting are that it reveals duplication of effort and lack of coordination among departments and identifies cost increases imposed by regulatory agencies and contract requirements.

Finally, because different levels of effort are identified for a particular function in each decision package, with zero-base budgeting, the agency can quickly shift to a lower level of effort, rather than scuttle an entire service program, when financial problems necessitate the reduction of expenditures during the budget year.

Disadvantages of Zero-Base Budgeting

The primary disadvantage of zero-base budgeting is that communication problems multiply as additional managers are involved in the budgeting process. If the top executive does not keep middle- and lower-level managers fully informed about the agency's long-range goals and fiscal procedures, head nurses and divisional directors may be unable to design workable budgets for the decision packages they are assigned to develop.

Another disadvantage of zero-base budgeting is that few operating managers are skilled in the

cost-analysis techniques used to compute cost-benefit ratios for alternative levels of program activity. For example, to determine the optimum level of program activity, a manager may need to know the break-even point for a particular expenditure. To determine the break-even point in personnel salaries for a service program, the manager must construct a personnel-cost curve for several levels of activity (this requires the computation of differential, overtime, and registry rates, as well as regular salary rates for all categories of involved personnel; of average sick or absent time for involved employees; and of mean professional and nonprofessional care hours per day for patients of different types. The manager should also prepare a revenue graph for each level of program activity (this requires calculating what fraction of patient fees is a payment for nursing care service). Finally, the manager must superimpose the revenue curve on the cost curve to identify the program's break-even point, that is, the level of program activity where cost and revenue curves intersect.

PREPARING FOR BUDGETARY CHANGE

To switch from traditional to program budgeting, the vice-president of nursing should pre-

MEMO CAPSULE

Budget Types

- **Line-item:** Itemize workers, machines, supplies by groups.
- **Fixed-ceiling:** CEO sets upper limit in advance.
- **Performance:** Allocate for functions, not divisions.
- **Program:** Group total costs for each service program.
- **Flexible:** Plan for two different levels of program activity.
- **Roll-over:** Forecast revenues and expenses for more than one year.
- **Zero-base:** Examine, justify all expenditures each year.

pare nurse managers for their changed responsibilities through a comprehensive educational program. At the outset, the vice-president for nursing should tell the nursing staff which management nurses will participate in budget preparation and which service programs require decision packages. The vice-president for nursing should establish a time frame for each phase of budget preparation to ensure submission of the total nursing department budget request to the top executive by a specified date. The nurse executive should develop procedures for each step of budget preparation: writing objectives for service programs, generating program alternatives, performing cost analysis, computing cost-benefit ratios. The vice-president of nursing should meet with involved nurse managers to explain purpose, philosophy, and methods of program and zero-base budgeting, and "sell" operating managers on such advantages of the new method as planning and control device. She or he should provide rudimentary instruction about budgeting and cost analysis to mid- and lower-level managers who are assigned to develop decision packages (Althaus et al., 1982). This instruction should include class presentations and one-to-one coaching by the budget director and vice-president of nursing. To "cost out" alternative methods for realizing each program objective, a manager must be able to use such quantification tools as work sampling, work measurement, cost charts, and cost-benefit ratios.

Operating managers are not trained accountants, so they will need help in analyzing costs after the procedure is explained to them. In addition to classroom teaching and individual coaching, the operating manager should be given a budget manual to follow in preparing the unit's or division's budget request. The manual should contain directives, instructions, and facts about the new budgeting procedure, identify the central authority for budget preparation and administration, differentiate responsibilities of top executive and operating managers for budget preparation, and specify the decision au-

thority of managers at each hierarchical level. The manual should include sample forms (filled out) that demonstrate measurable program objectives, cost analyses of several activities included in a service program, cost-benefit analyses for alternative service methods, interdepartmental communication channels for budgetary planning, and a completed budget request.

Many managers resist zero-base budgeting from fear that identification of a financially inefficient operation will precipitate the termination of loyal employees. Therefore, the top executive can increase acceptance of the zero-base budgeting approach by pledging that no employees will be eliminated as a consequence of indicated program changes and that *if* staff shrinkage is necessary, it will be accomplished through normal attrition.

To enable operating managers to calculate manpower costs for a service program, the vice-president for nursing should provide them with forecasted information about daily patient census in each nursing unit and proportion of patients in each care or acuity category. The agency executive, vice-president for nursing, and operating manager should reach a consensus about the nurse-patient ratio needed for safe patient care in each unit and the professional-nonprofessional personnel ratio to be provided in each unit.

Often, a manager inexperienced in zero-base budgeting fails to describe proposed service programs in enough detail to permit the accurate costing of required resources. However, it is also possible for an anxious manager to prepare an overly detailed budget for a service program. An extremely detailed budget is undesirable, because it stifles later program alterations needed to adjust to changing economic conditions. To ensure managerial autonomy, the operating manager must have flexibility in budget management and authority to transfer funds from one account to another, or one purpose to another, to accommodate changing care demand and agency circumstances.

The first year of implementing a zero-base budget is frustrating for all personnel. The procedure is exceedingly time-consuming, because communications are impeded by ignorance of budget techniques and changes in employee relationships. More adventurous managers attempt more ambitious systems of cost control and, so, are seen as responsible for most errors and failures. Top executives can ensure commitment to zero-base budgeting and stimulate development of program alternatives by rewarding managers for trying a new method, rather than punishing them for their lack of budgeting or accounting skill.

PREPARING THE BUDGET

After mid- and first level nurse managers have been taught the purpose, method, and tools for budget making, the budget document can be prepared in four to six weeks. The agency's chief financial officer and members of the finance department develop the budget manual containing the necessary forms, policies, and instructions, and distribute these to participating managers (Strasen, 1987). The operating manager's responsibility is to develop a decision package for each service program or activity under her or his control. In developing a program decision package, the manager should review historical and background data to understand the program's relationship to overall agency operations. If a divisional director decides to institute a diabetic instruction clinic to be staffed by a pair of clinical nurse specialists, the director should first explore the roles of other clinical nurse specialists in the agency (nurse practitioners, nurse clinicians, ostomy nurses, etc.) and investigate their efficacy in teaching different types of patients. Before preparing the budget for a nursing unit, the head nurse or patient care manager should identify recent and forthcoming changes in medical and nursing practice and calculate the effects of these changes on future nursing costs.

To prepare a capital expenditure budget request, a manager should explain the need for

the proposed equipment in narrative form, with accompanying sketches or diagrams to illustrate equipment structure, placement, and relation to other elements of the care system. An engineer should assess the ability of the proposed equipment to meet industry performance and safety standards and evaluate the compatibility of proposed equipment with existing equipment. If the engineer finds the proposed equipment satisfactory, the manager should compute the *total* cost of the new equipment, which includes the cost of item, installation, training employees for use, and diminished productivity during equipment break-in period. Finally, the manager should submit a decision package to the top executive that describes the desired equipment, lists alternative equipment for realizing the same objective, calculates costs of using each, and explains the reasons for recommending the requested equipment over others.

By definition, a program budget includes *all* expenditures of any type that are associated with a particular program. However, a nurse manager should be primarily concerned with the manpower costs of the budgetary decision package, because personnel salaries constitute the largest expenditure in the nursing budget and the largest single component of hospital costs (Wellever, 1982) and home health agency costs (Cushman, 1984). The nurse manager should differentiate between direct and indirect manpower costs for each program, because methods for controlling the two differ. Direct manpower costs in nursing can be modified by changing the classification of workers used for a particular function or decreasing the number and duration of each patient's direct care procedures. For example, direct labor costs can be reduced by substituting nonprofessional for professional personnel or decreasing the frequency of bathing, turning, ambulating, instructing, comforting, or monitoring patients. Indirect costs can be controlled by modifying the agency's formal organization structure or by changing the method of nursing care delivery (because both changes affect the amount and type of super-

vision for direct caregivers). Often, nursing management costs can be decreased by flattening the organizational pyramid and using a primary, rather than a team, nursing method (Fairbanks, 1981).

Developing the Nursing Manpower Budget

To develop a zero-base program budget, the head nurse or patient care manager in charge of a given cost center should identify and evaluate alternatives for each major nursing program or activity in her or his area of responsibility. The head nurse of a general surgical unit might analyze the advantages or disadvantages of assigning nursing care responsibilities by the functional, team, primary, modular, and case methods. After deciding which care-delivery method will most effectively support unit nursing objectives, the manager should prepare a decision package for that method by identifying a minimum level of effort for the function (e.g., from 50 to 75 percent of current expenditure levels) and describe two or three additional levels of effort, with cost specifications for each.

For example, the manager of a 35-bed unit with a nursing staff of 23 assigned by the team method decided to recommend a change to modular nursing. The manager might determine that minimum staffing level for the unit would be 18 personnel (75 percent of 23) and describe a modular staffing plan for 18 employees, as well as for two or three larger groups, listing the costs and benefits of each. If average annual salaries in the agency are \$30,000 for an RN, \$24,000 for a licensed practical nurse (LPN), and \$18,000 for an aide, the manager might list the following alternatives:

1. Staff of 18: 12 RNs and 6 LPNs, organized into three modules, each consisting of 4 RNs and 2 LPNs, and assigned to care for 11 or 12 patients. This plan would call for a total manpower cost of \$604,000 per year. The staff would be small enough that communication problems would be minimal, but not so small

that the absence of one employee would severely disrupt the work schedule.

2. Staff of 20: 12 RNs and 8 LPNs, organized into four modules, each consisting of 3 RNs and 2 LPNs, and assigned to care for 8 or 9 patients. This plan would call for a total manpower cost of \$552,000 per year. The larger number of modules would permit the organization of the unit into districts of such size that personnel would have shorter distances to travel, but the head nurse would have to interact with a greater number of module leaders than in the alternative models.
3. Staff of 21: 12 RNs, 6 LPNs, and 3 aides, organized into three modules, each consisting of 4 RNs, 2 LPNs, and 1 aide, and assigned to care for 11 or 12 patients. This plan would call for a total manpower cost of \$558,000 per year. The presence of an aide in each module would relieve the nurse of responsibility for many supply and transportation tasks, but the greater number of worker categories in each module would lead to communication problems.
4. Staff of 22: 16 RNs and 6 LPNs, organized into two modules, each consisting of 8 RNs and 3 LPNs, and assigned to care for 17 or 18 patients. This plan would call for a total manpower cost of \$624,000 per year. The higher ratio of professional to nonprofessional staff should facilitate more effective instruction and emotional support for patients, but larger module size would increase management problems for module leaders.

The head nurse should rank the four alternatives in order of preference and explain why the recommended plan is preferred. If the manager wants to keep costs to a minimum but believes it uneconomical to employ aides because their lack of clinical skills limits their flexibility in patient assignment, the manager may rank

the alternatives, from most to least preferred, as follows:

1. Staff of 20: 12 RNs, 8 LPNs, divided into four modules
2. Staff of 18: 12 RNs, 6 LPNs, divided into three modules
3. Staff of 22: 16 RNs, 6 LPNs, divided into two modules
4. Staff of 21: 12 RNs, 6 LPNs, 3 aides, divided into three modules

To "sell" the advantages of primary, modular, or case nursing assignments over team or functional assignments, a manager should design the personnel budget request to illustrate how patient fees for nursing service compare with nursing personnel costs under each system. If the agency's management information system (MIS) does not indicate what portion of a patient's per diem fee represents payment for nursing care, the manager should ask the agency's chief financial officer to make that calculation. This calculation entails subtracting from the per diem cost the cost for housekeeping, dietary service, medical house staff services, agency management, and overhead expenses.

Direct Nursing Costs

From figures reported by member hospitals, the American Hospital Association reports, for each clinical area, the average direct nursing costs per patient day in hospitals of various types. Using this figure as a standard cost target, a head nurse should compute the cost of direct nursing service per patient day in her or his own unit to determine the cost effectiveness of the unit's nursing operations, compared with national or regional standards. By contrasting the unit's personnel costs with those of similar units in similar hospitals, the vice-president of nursing can "manage by exception." That is, he or she can analyze staffing policies or practices only on those nursing units where annual personnel costs show significant variation from standard

costs, as reported by the American Hospital Association.

If the manager finds the unit's personnel costs excessive by comparison, he or she should analyze unit work flow to identify causes of inefficiency and address these problems in alternatives for the budget decision package. The manager should look for evidence of the following problems, as common causes of excessive labor costs: faulty supervision, inadequate worker orientation, poor work scheduling, inadequate supplies, malfunctioning equipment, high proportion of trainees, poor working conditions, and use of overqualified workers for routine tasks. If an initial search yields a high index of suspicion for any of these problems, the head nurse should implement work-sampling or work-observation studies to measure the amount of instruction, supervision, and downtime for each worker. The manager should also examine personnel records to determine the employee absenteeism rate (one index of boredom in an overqualified, underutilized worker) and employee and patient accident rates (often related to faulty equipment).

One method for calculating annual turnover rate for nursing employees is.

$$\text{Annual labor turnover rate} = \frac{100 \times \text{Number of employees lost through avoidable turnover during year (not death, retirement, etc.)}}{\text{Average number of workers employed in unit during year}}$$

Supply Costs

The second most important expenditure of most health agency budgets is supply costs. Most agencies budget supply expenditures on an "historical-plus-inflation" formula. With this method, nurse experts forecast the type and amount of different supplies that will be needed to care for each type of patient expected during the future budget period. Probable unit cost for each supply item is determined. These costs are

multiplied by number of projected service units for the coming year. Projected costs for all supply items are added to yield total supply costs, and this amount is multiplied by a standard inflation factor (Hoffman, 1985; Strasen, 1987).

The Flexible Budget

The flexible budget is a decision package that contains alternative plans for different levels of spending and is advantageous to both top executives and the operating manager. When operating managers provide alternative program plans, each requiring a different quantity of input and yielding different output volume, the top executive can choose among alternative methods for each function to create a total agency budget, where divisional contributions are well balanced and mutually supportive. By presenting alternative budget plans for a service program, the operating manager acquires a psychological advantage during budget negotiations with superiors, because the unit manager need not plead for a particular level of spending. Instead, the head nurse or division director can act as expert advisor concerning the advantages and disadvantages of each program activity level. If later changes in service demand or economic condition make it impossible to continue the planned level of expenditure throughout the budget year, the agency can quickly shift to one of the alternative activity levels, so the unit manager is not held to an unrealistic spending figure.

To prepare a workable budget proposal, a manager must realize that possible alternative plans are sometimes limited by agency commitments, regulatory bodies, or union contracts. If a hospital administrator has promised the head of the oral surgery department to provide 24-hour, seven-day nursing coverage for an oral surgery room in which emergency patients, outpatients, and inpatients are treated, the head nurse or divisional nursing director cannot discontinue staffing the room on nights or weekends because the small number of patients treated makes it expensive to ensure nursing

coverage. If the JCAHO mandates that a registered nurse must circulate for every surgical procedure, the operating room supervisor cannot use surgical technician-circulators in an effort to reduce manpower costs for less complex surgical procedures. If the registered nurses' union contract calls for premium payments to nurses who work on successive weekends, projected staffing costs must include those premiums for any alternative plan where nurses are scheduled to work two weekends in a row.

Tools Used in Budget Preparation

Several tools are used in preparing a nursing budget. The more common are work sampling, systems analysis, trend analysis, cost-benefit analysis, and marginal analysis.

Work sampling is an industrial engineering technique, in which an individual from outside the primary work group observes the activities of a selected sample of employees at regular intervals, records the activity each is engaged in, and generalizes from the observed sample of the worker's activities to estimate the percentage of the employer's total work time spent in each task. More reliable information about the distribution of employee time among several tasks can be obtained by work sampling than by employee self-report, because a disinterested outsider will measure time more objectively than an employee whose job security may be threatened if study results reveal inefficient time use.

In systems analysis a nursing program is viewed as a complex whole, an interrelated series of steps in which specific inputs of employees, material, and equipment are subjected to designated throughput processes to produce a desired service output. Systems analysis is helpful in replanning or adjusting an inefficient service program, because step-by-step examination of a complex process often reveals workable alternatives to malfunctioning system segments. Nursing programs, like other man-made systems, have built-in feedback loops to carry information from one step of the system to an-

other for the purpose of correcting or updating input or throughput and keeping the total system on target. Managers should view each nursing program as a complex system, with specific inputs of patients, direct-care personnel, and selected support services, combined so as to yield desired patient outcomes. By analyzing the nursing process systematically, the manager can discover ways in which to improve patient care by altering the number or type of personnel assigned, rescheduling care activities, changing the relationship of patients to personnel, or improving the manager's information about patient census, patient classification or acuity, or staff availability.

Trend analysis is a mathematical tool whereby a manager graphs data from the preceding three to five years related to the following factors: patient census; patient diagnosis; patient length of stay; staff seniority; staff turnover; staff sick or absent time; hours of care per patient-day delivered by each employee classification; and daily cost of direct nursing care per patient-day. These graphs are used to analyze the direction and degree of change for each statistic as a basis for predicting future workload and staff characteristics. Trend analysis often yields information of value in budget planning. However, factors other than historical trends also influence future nursing supply and demand. Among these are population changes; medical staff characteristics; technological breakthroughs; weather changes; and alteration in the nation's work or recreational patterns.

A cost-benefit ratio is a numerical relationship between the value of a program's costs and the value of the program's benefits. The cost-benefit ratio is expressed as a fraction. If the fraction is greater than 1, that is, if benefits outweigh costs, the program is economically worthwhile. The cost-benefit ratio is useful in selecting the best of several alternative programs. Unfortunately, the ratio is difficult to compute, because many expenditures are impossible to separate on a program-to-program basis. It is

difficult to determine what proportion of an agency's nursing research costs should be charged to each nursing unit. In addition, many program benefits cannot be expressed in financial terms. It is impossible to establish the monetary value of improved morale and self-esteem experienced by patients who are cared for under primary or case methods of nursing care delivery.

Marginal analysis is a mathematical tool by which a manager computes the additional value to be derived from expenditures above a program's minimum spending level. This analysis is useful because of the phenomenon of diminishing utility, or the tendency for benefits to decline from each additional unit of input above a critical point. The margin is that point of balance in any system where additional expenditure for personnel, supplies, or equipment yields the same return as the former level of expenditure (Cleland, 1990). Marginal analysis is used to identify the expenditure level below which to aim a budget request to avoid financial waste.

MEMO CAPSULE

Budgeting Tools

- Trend analysis: Graph patient, personnel data for three to five years.
- Cost-benefit ratio: Program costs divided by benefit value.
- Marginal analysis: Added value from spending above minimum.
- Work sampling: Estimate percentage of worker's time spent in each task.
- System analysis: Alter inputs and throughput processes in a system model to observe effects on outputs.

As advantageous as these methods are for budget planning, trend analysis, cost-benefit analysis, and marginal analysis are rarely used, because health care managers lack time to

gather the needed data and social costs and benefits of nursing service are difficult to quantify.

MONITORING THE BUDGETING PROCESS

Budget reports are needed to monitor expenditures and keep the budget process focused on long-range objectives. Most common budget reports are capital equipment and supply inventories, position control systems, monthly personnel budget reports by cost center, and quarterly budget variance reports that show spending deviations from accepted standards. Management decision quality depends as much on the accuracy of the financial information the manager receives as his or her decision style. Therefore, top executives and unit managers should help the agency's financial experts to design the agency's MIS. To be effective, financial reports should be focused on information needs of operating managers, rather than on convenience for the accounting personnel. Before designing a financial reporting system to back up the budget process, planners should determine what information should be reported, to which managers, in what form, and with what frequency. Reporting frequency should be decided according to the following rule: the time between reports should be the shortest period in which management can effectively intervene in a problem situation and in which significant operational changes are likely to occur (Wilson, 1975).

Capital Equipment and Supply Inventories

A capital equipment inventory is an itemized list of current capital assets that enumerates each piece of capital equipment, together with the item's serial number, current valuation, and physical location. When a new item of capital equipment is purchased for a department or unit, it should be listed on the capital equipment inventory. If the new item replaces an outmoded piece of equipment that has been removed from the unit, donated to another agency, or sold for salvage, the older equipment and its serial number should be removed from the capital equip-

ment inventory to prevent confusion in equipment monitoring.

Supply or stock inventory lists are needed to implement the operating budget for each unit. Most health agencies provide operating managers with an agency formulary, a medical supplies stock list, a linen supplies list, and a stationery stock list. Each supply inventory list enumerates, by name, type, and size or dose, all supplies available for use in the agency. In some agencies movement of supplies through the organization is so closely monitored that decreased supply of an item to a critical level triggers a computerized order for that item from an outside vendor. If unexpectedly heavy use depletes supply of a particular item, a computerized "stock out" report is circulated to notify operating managers that the item is temporarily unavailable.

Position-Control System

A position-control system is needed to implement the personnel budget. Employees continually enter and leave a health agency, and some employees move from one position to another in the agency. Personnel funds are allocated for a specified number of positions at each salary level for each budget cycle. Consequently, a system is needed to prevent an operating manager from accidentally or intentionally hiring more employees of any type than have been authorized for the cost center. To prevent placing more than one employee into a single budgeted position, the position-control system should identify each budgeted position by number and specify any changes in that position through inactivation, deletion, or reclassification. The system should also identify by number each agency employee, specifying which budgeted position the employee occupies, with the date and reason for any move from that position to another.

Ideally, the serial number assigned to each budgeted position should indicate both the job's classification and the budget unit and cost center to which the position is assigned. Each personnel transaction that changes the relationship of

a particular employee to a specific position should be documented, dated, and assigned a number that identifies the nature of the transaction (hiring, firing, resignation, retirement, promotion, leave of absence) and facilitates later retrieval of the information. For example, a six-digit number might be used to identify employees entering and leaving the agency. An alphabetical-numerical system might be used to identify any personnel transaction by which an employee is moved from one position to another in the agency. A numerical-alphabetical system may be used to identify any budgetary change by which a position is added, deleted, or reclassified to a different job category.

Supply Control

Each cost center should also receive a monthly or 13-period report of supply charges to encourage clinical managers to limit personnel access to expensive supply items and educate personnel for economical patterns of use (Smeltzer and Hyland, 1989).

Financial Reports

A monthly or 13-period personnel budget report is essential for expenditure control, because manpower expenditures account for 50 to 65 percent of the operating cost of most health agencies (Cushman, 1984; Hillestad, 1983). An effective cost center personnel budget report includes the following information for the current reporting period, present year to date, and same reporting period during the preceding year: number of budgeted position in each category; number of persons on payroll in each category; regular, overtime, differential, and fringe-benefit expenditures for each employee; and nursing personnel costs in relation to some performance indicator, such as number of patient-days per worked hour (Ehrat, 1987). If the personnel budget report reveals the proportion of budgeted funds allocated for the current reporting period and year to date, together with a variance of actual expenditures from planned expenditures, the divisional director or head nurse can

"manage by exception," limiting attention to those expenditures that vary significantly from approved amounts.

Most health agencies have installed computer-based information systems, so operating managers are unlikely to lack information about a nursing unit's financial operations. Often, middle- and lower-level managers are distracted by a blizzard of unnecessary data, because they are supplied with computerized reports about processes over which they have no control. To save computer costs and conserve managerial time, the content of each financial report and account report should be screened for relevance, timeliness, simplicity, and comparability with other measures and other time periods. Each computerized report should be immediately comprehensible to the operating managers who are expected to use the information. The title of the report and column headings should be descriptive and unambiguous; tables and charts should be used to display data; narrative reporting should be kept to a minimum; and the reader's attention should be directed to departures from planned expenditure levels.

Budget Controls

In most health agencies personnel transactions are so complex that there are numerous opportunities for financial carelessness by an operating manager. Because of daily pressures, a head nurse or patient care manager may unknowingly hire a staff nurse to fill a recently vacated position before the former employee's accumulated vacation and holiday time has run out. In an agency where line-item accounting is used to manage the personnel budget, repetition of this practice will soon deplete the personnel funds that accrue from vacant positions, and a budget deficit will result. To prevent overspending personnel funds, variance controls should be employed (Finkler, 1985). A well-coordinated labor relations-personnel-budget system includes a position-control system; rules that restrict employee transaction from one position or one cost center to another; a requisition pro-

cedure that ensures a position is vacant before a replacement employee can be hired into the position; and a system that automatically corrects position quotas when a budgeted position is upgraded or downgraded. To minimize confusion from internal employee mobility, agency policies may require that an employee remain in the position for which he or she was hired for at least six months before being transferred or promoted.

Another method for reducing confusion is to require that a manager use an official personnel-requisition form when hiring a new employee. The serial number of the position to be filled should be specified on the form, together with the name and employee number of the person who last vacated the position. Changes in unit workload may make it desirable to change the job classification of an existing nursing position to achieve a more effective professional-non-professional mix. For example, in changing from a team to a primary nursing format, the manager may decide to convert two LPN positions and one nurse aide position to two RN positions. However, operating managers should be restrained from impetuously reclassifying jobs. The alteration in work volume may be transitory, in which case a reverse reclassifica-

tion might be needed after only a short interval. To minimize the confusion that results from job reclassification and changing position quotas, some agencies permit operating managers to reclassify jobs only during the period of budget preparation or only at the beginning of a new budget cycle.

Problems in Financial Reporting

Often, health agency managers find the financial reports provided them by the agency's computerized MIS unclear or irrelevant to their daily concerns. Most MISs are geared to the needs of middle managers, so much of the reported data is unintelligible to both agency executives and unit managers. Final responsibility for budget control rests with the agency's top executives, so it is imperative that financial reports be comprehensible to them, as well as the middle- and lower-level managers who actually disburse budgeted capital, personnel, and operating funds. A personnel budget report may combine sick days, absent time, educational leave, and jury duty under one heading when reporting individual employee's absent time. In reading the report, the head nurse, who knows each employee on the unit, can rapidly sort out those employees who missed work because of serious illness, educational leave, or jury duty, and he or she can focus corrective action on employees whose unexcused absences and repeated one- or two-day illnesses indicate the need for counseling or discipline. The vice-president of nursing, who is not personally acquainted with unit employees, cannot differentiate between justifiable and excessive work time loss and, so, is likely to misinterpret reported data on absenteeism.

To determine the relevance of specific financial data to a particular manager, the vice-president of nursing should decide whether the manager has authority to control the reported expenditure. If the agency allows nurses to work overtime in any division, but there is no mechanism for back-charging overtime salary for a regular employee of one division who works

MEMO CAPSULE

Budget-Monitoring Tools

- Capital inventory: Itemized list of present capital assets.
- Supply inventory: Itemized list of available supplies.
- Position control: Status of each budgeted position.
- Monthly account reports: Amount spent and remaining per item.
- Cost accounting: Linking each expenditure to its purpose.
- Variance analysis: Budgeted versus expended amounts per item.

overtime in a different division, a divisional nursing director cannot use overtime expenditure reports to monitor personnel costs. Knowing that some of the overtime costs billed for nurses in the Surgical Nursing Division were paid for Surgical Nursing staff members to work overtime in the Medical Nursing Division enables the divisional director of Surgical Nursing to discount overtime wage totals as an index of her or his own managerial effectiveness.

The top nurse executive should recognize possible morale effects of the health agency's financial reporting system. If the agency administrator and vice-president of nursing emphasize budget balance above other measures of managerial performance, divisional nursing directors and head nurses may direct so much effort toward cost containment that nursing care quality is eroded. Such a development would have disastrous long-range effects on agency reputation and risk-management efforts.

Cost Accounting

Cost accounting is the process that supports the budget reporting system and agency efforts for cost containment. Cost accounting is a set of techniques for associating costs with the purposes for which they were incurred. In accounting, the only facts recorded are those that can be expressed in monetary terms. Therefore, an accounting record gives a significant but incomplete picture of agency events.

In recent years responsibility accounting, rather than simple cost accounting, has been implemented in many health agencies. The aim of responsibility accounting is to make operating budgets and expenditure accounts coincide with the agency's responsibility and authority structure. Responsibility accounting is the classification of financial data according to objectives, by agency unit and service program. A responsibility center is a service unit, such as a nursing unit, that is controlled by a manager, such as a head nurse or patient care manager, who is responsible for using resources efficiently to produce a specified work output. Just as pro-

gram budgeting requires that total program costs be planned as a unit, responsibility accounting requires that total program expenditures be reported as a unit and prorated to the number of clients served.

The budgetary procedure should be tailored to the specific needs of each agency, agency clients, and agency employees. However, there should be enough similarity among reporting procedures of different agencies to permit financial comparisons among similar agencies. The American Hospital Association suggests that all hospitals adopt a uniform chart of accounts to facilitate cross-agency comparisons of income-expenditure balances (Swansberg, 1978). After a health agency has selected a particular system for reporting costs, all events of a similar character should be reported in like fashion. Constancy in financial reporting makes it possible to compare the expenditures of one budget period with those of a later period.

It is counterproductive to record small expenditures, because the time spent in documenting the expenditures is not justified by the usefulness of the recorded data. For example, unless there is reason to suspect that selected groups of nursing personnel are wasting stationery supplies, there is no advantage in recording the cost of the stationery supplies used in each nursing unit.

Financial data should not be reported to managers who have no control over the expenditures and no need for the information. Neither should a cost center be charged for expenses over which the cost center manager has no control. Consequently, in many agencies, the individual nursing unit is not charged overhead costs for rent, light, heat, and insurance. A couple of examples follow.

To determine nursing costs, nurses in a midwestern hospital used direct observation to determine the hours of nursing care given to general medical-surgical patients. When patients were classified into four levels of nursing care need, the average daily hours of total nursing care for patients in each care level was: (1) Level

I, 3.2 hours, (2) Level II, 4.75 hours, (3) Level V, 6.54 hours, (4) Level VI, 7.67 hours. The average hourly pay rates for nursing personnel in the studied units were calculated as \$17.42 for RNs and \$13.40 for LPNs (this figure included shift differential, FICA tax, and paid benefits). When the cost of the staff's personal time was subtracted, the researchers determined that the total daily nursing care costs (for both RNs and LPNs) for patients in the studied units was: Level I, \$81.59; (2) Level II, \$96.12; (3) Level V, \$118.02; (4) and Level VI, \$139.74 (Flarev, 1990).

Similarly, nurses in a southern hospital used data from patient classification reports, nursing assignment sheets, patients' medical record, and payroll files to determine the nursing hours and costs for five types of cardiovascular surgery intensive care patients. Data analysis revealed the mean daily direct nursing care hours and mean total daily nursing costs for patients of the five types as (Sullivan, Carey, and Saunders, 1988):

	Nursing hours	Costs
Coronary artery bypass graft	12.1	\$224
Aortic/aortic valve repair	14.6	\$270
Aortic aneurysm repair	14.2	\$270
Cardiac transplant	21.4	\$365
Combination of any of above four	17.5	\$292

Advantages of cost accounting

The primary advantage of cost accounting is that the accumulated data enable a head nurse or divisional nursing director to assess the cost of each extra demand imposed on the nursing unit, such as the addition of an abortion service to the gynecology nursing unit or of an oral surgery outpatient treatment service to the inpatient oral surgery treatment service. Cost accounting also enables a manager to identify the interaction between different expenditures. Through cost accounting, a manager can determine whether hiring additional operating room

or critical care employees increases the unit's expenditures for scrub clothes, sterile supplies, and bed linen.

Program-oriented cost accounting enables a manager to identify popular service programs that receive hidden funding in the form of voluntary time contributions by professionals from other units. These employees, if not attracted to the popular service program, would be working on the program for which their salary is budgeted. In some health agencies, in-house clinical nurse experts who are assigned to various clinical specialty units serve as volunteer teachers for in-service programs. Reported personnel costs for these will look deceptively low, unless program-based cost accounting is performed.

Disadvantages of cost accounting

The primary disadvantage of cost accounting is that it is difficult to associate some costs with a particular program. Often, a particular service supports several programs (a single nursing research study may yield findings that improve nursing care in several nursing units). A cost incurred at one point in time may facilitate service programs over an extended period (purchase of a bed scale facilitates improved patient care in an intensive care unit for several years).

Another disadvantage of cost accounting is the fact that it is difficult for a manager to justify the cost of a nursing care program when quantifiable measures of all patient outcomes are not available.

VARIANCE ANALYSIS

Sophisticated managers use the budget as both planning tool and control device. The budget can control expenditures by providing feedback to the manager that expenditures exceed or fall short of the budgeted amount. To use the budget for control purposes, the manager should use the technique of variance analysis. A variance is a discrepancy between the amount of funds intended to be spent for a particular purpose and the amount of funds actually used for that purpose (Mailhot et al.,

1990). Variance analysis is a four-step process (Holder and Williams, 1979).

1. Funds required for each budget item or expenditure are calculated for the expected level of activity (budget planning).
2. For each budget item, the difference between actual and planned expenditures is calculated.
3. These differences (variances) are examined, and the cause of each variance is identified.
4. Each positive variance (amount expended that exceeds the amount budgeted) is corrected, either by increasing the funds allocated for the item or decreasing expenditures for it.

The nurse manager should receive regular reports of the accounts over which he or she has supervisory control. It is customary for the budget reports to indicate for each account listed the amount budgeted, the amount expended, and the dollar amount and per-

centage of over- or under-spending (Finkler, 1985).

Common causes for budget variance are:

1. Unanticipated increase in supply or equipment prices
2. Bills received in a different month from when purchases were made
3. Higher-than-expected inflation rate
4. Failure to calculate the cost of disposable supplies needed for new equipment
5. Professional practice changes that entail additional purchases
6. Unforeseen technological improvements demanded by patients and physicians
7. Reimbursement changes that alter the type and volume of service delivered
8. New medical staff members who implement new treatments requiring new equipment and supplies
9. Changes in safety or infection-control standards
10. Excessive breakage of equipment by untrained staff

Table 5-1 Sample Variance Analysis

	Budgeted (\$)	Actual (\$)	Variance (\$)	Percentage
Personnel				
Regular	80,250	78,500	-1,750	-2
Registry	3,000	3,380	+380	+13
Workmen's Comp	240	—	-240	-100
Supplies				
Office	120	87.50	-32.30	-27
Med/surg	1,500	1,760.00	+260.00	+17
Cleaning	20	8.50	-11.50	-58
Scrub suit	500	639.00	+139.00	+28
Repairs				
Monitors	150	220.00	+70.00	+47
Computers	150	—	-150.00	-100
Furniture	100	35.00	-65.00	-65
Professional				
Books	50	37.50	-12.50	-25
Conferences	600	537.50	-62.50	-10

RESEARCH BRIEF

Status of Health Services Research by Nurses

Purpose: Determine current repertoire of health services research in nursing.

Sample: One hundred thirteen studies in health services research published in nursing literature between 1980 and 1989

Method: Investigators performed *Nursing and Allied Health* (CINAHL) on-line computer search to locate nursing research with health services focus. Reports were analyzed to determine the frequency of the independent and dependent variables investigated.

Findings: Of 113 studies, 58 percent dealt with cost and quality issues; 42 percent with nursing care approaches; 38 percent with nurses' job satisfaction and retention; 29 percent with health care delivery environment; 17 percent with nurses' characteristics; 14 percent with tool or classification development; 12 percent with

nursing care hours; 3 percent with health care consumers. (Both independent and dependent variables were recorded for each study, so total percentages exceed 100%.) There were more studies of primary nursing in the early 1980s than in the late 1980s. There were more studies of nurses' dissatisfaction and turnover during the late 1980s than in the early 1980s. Although some studies investigated care cost and quality, most addressed these topics indirectly. There were few studies of information systems or health care technology.

Application: The study shows a disturbing lack of cost benefit and cost-effectiveness analyses. Because a major responsibility of first-line nurse managers is cost control, these managers are well prepared to research costs of alternative care measures.

Source: Ingersoll, G., Hofbart, N., and Schultz, A. Health services research in nursing. Current status and future directions. *Nursing Economics* 8,4: 229-238, 1990.

11. Opening or closing of nursing units
12. Improperly budgeting unproductive time (Mailhot et al., 1990; Smeltzer and Hyland, 1989).

Budget variance reports should be viewed as an aid for managerial decision making, rather than as means for detecting management error. It should be expected that a health agency's economic, social, and political environment would change during the budget year and that preset budget amounts would prove inappropriate. Hence, budget variances should be expected and treated as a source of clues to needed change in financial plans (McGrail, 1988) (Table 5-1).

SUMMARY

Nurse managers control the spending of a major portion of a health agency's resources. Resources are best conserved when the manager of each cost center prepares and administers a

zero-base program budget for the unit. A zero-base budget requires the prediction of nursing service needs, the justification for all expenditures, and the identification of appropriate performance measures. After the nursing unit budget is approved and funds are appropriated, the manager should analyze monthly budget variance reports to evaluate spending patterns and adjust disbursements to meet changing circumstances.

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Nursing Standards

Rules have a double edge; they constrain the behavior of those to whom they are applied and they constrain the behavior of the applier.

CHARLES PERROW

OBJECTIVES

After reading this chapter, you should be able to:

1. Explain the difference between a nursing standard and a nursing norm.
2. List three sources from which a nurse manager can identify nursing care standards.
3. Write one example of a structure standard, one example of a process standard, and one example of an outcome standard that apply to nursing practice in your clinical nursing specialty.

A nursing standard can be a target or a gauge. When used as a target, a standard is a planning tool. When used as a gauge against which to evaluate performance, a standard is a control device.

The standard of nursing care for a particular health agency is the level of care that nursing staff believe necessary to achieve care or treatment goals for a specific type of patient. The standard of care in a heavily endowed private hospital may be higher than that in an inadequately funded municipal hospital (Brown, 1986). The standard of care in a research unit

with all-professional nurse staff may be higher than that in a general medical-surgical unit with mixed professional-nonprofessional staff.

DEFINITIONS

A *standard* is a practice that enjoys general recognition and conformity among professionals or an authoritative statement by which quality of practice, service, or education can be judged. A *nursing care standard* is a descriptive statement of desired quality against which to evaluate nursing care. A *guideline* is a recommended path to safe conduct, an aid to profes-

sional performance (American Nurses' Association, 1991b).

Definitions of the following terms should clarify the relationship of nursing care standards to other planning and control devices. An *objective* is a concrete statement of intention, an external goal toward which effort is directed. A *criterion* is the value-free description of a variable believed to be an indicator of patient care quality (Coyne and Kilien, 1987). A *norm* is the current level of performance of a particular criterion, as determined by descriptive study of the target population. A *model* is a phenomenological analogy used to describe something that cannot be directly observed and about which deeper understanding is sought. A *patient problem* is an actual or potential need, condition, or complication that derives from the patient's diagnoses or care and indicates need for nursing intervention. A *nursing problem* is a difficult situation encountered by a caregiver in pursuing nursing care goals. *Quality improvement* is the process of establishing optimum standards of nursing practice and planning or providing care that meets those standards (Hughes, 1987). A *nursing order* is a prescribed action issued in the form of a command by one nurse to other nursing personnel. *Nursing audit* is the process of analyzing data about the nursing process or patient outcomes to evaluate the effectiveness of nursing interventions (Ott, 1987).

Standards are related to other planning and control devices as follows. A standard is a performance model that results from integrating criteria with norms and is used to judge quality of nursing objectives, orders, and methods. One method of nursing quality improvement is nursing audit, in which patient outcomes are measured against nursing standards and performance criteria to determine the efficacy of nursing actions.

PURPOSES OF NURSING CARE STANDARDS

The purposes of publishing, circulating, and enforcing nursing care standards are to (1) im-

prove the quality of nursing care; (2) decrease the cost of nursing care; and (3) determine nursing negligence. The publication of nursing standards improves care quality by focusing the nurses' effort toward appropriate goals and heightening their motivation for goal achievement. The publication of standards can also decrease care costs by eliminating nonessential nursing activities. Establishing nursing negligence consists of determining that there is a standard of care governing the patient's situation and that harm could be foreseen if the standard was not met; proving that the nurse failed to meet the relevant standard; and determining that the nurse's failure to meet the standard caused harm to the patient.

Nursing is a service profession. Services rendered by nurses are essential to clients' life and welfare. Therefore, the profession as a whole is accountable for the quality of care delivered by individual nurses. The American Nurses' Association, the organization that represents the nation's professional nurses, has developed standards for judging nursing effectiveness and controlling care quality.

The scientific explosion of recent years has made it impossible for a nurse to remember all the information needed to provide effective care for patients with complex needs. Specific nursing standards and practice criteria should be developed for each clinical nursing speciality to assist nurses in making sound decisions and safe interventions for the complex patient problems presented in each clinical division.

Health care costs have risen to the point that few citizens can afford the expense of even a short hospital stay. Consequently, the majority of health care costs are paid by insurance or government subsidy. Taxpayer rebellion in some states has limited government fund allocations for health services. Regulatory bodies, such as the JCAHO (1992) and state health departments have promulgated nursing care standards to increase the cost effectiveness of nursing services. These standards are designed to help nurses to decide which nursing measures

can be omitted as nonessential to obtain desired patient outcomes and which must be implemented because they are essential to patient recovery and rehabilitation.

To control financial waste and nursing error, a health agency must enforce published nursing care standards. Standards are especially important when lack of funds or public insensitivity cause unfair distribution of health services to minorities. Nursing care standards are essential, too, in units where relatively inexperienced nursing personnel are assigned to care for patients with diverse diagnoses and complex health needs.

SOURCES OF NURSING CARE STANDARDS

Professional nursing organizations and regulatory bodies have long advocated the use of nursing care standards (Fig. 6-1). During the 1966 American Nurses' Association convention, five divisions of nursing service were established within the parent organization, and a major concern of each division was to form standards for practice in that specialty. In 1973, the American Nurses' Association Commission on Nursing Service published 12 standards for

organized nursing service in hospitals and health agencies (Stevens, 1976). In the same year the American Nurses' Association Congress on Nursing Practice published a set of general nursing practice standards and a set of standards for each of the following specialties: Geriatric Nursing, Community Nursing, Maternal and Child Nursing, and Psychiatric and Mental Health Nursing. Since that date, nursing care standards for various clinical practice divisions have been revised to reflect the profession's changing knowledge base (American Nurses' Association, 1983, 1985a, 1985b, 1986, 1988, 1990). In 1975 the Joint Commission on Accreditation of Hospitals urged the use of outcome criteria to evaluate nursing through their Performance Evaluation Procedure. In 1991, the American Nurses' Association revised the generic standards for clinical nursing practice, that is, the standards that apply to care provided all clients. This revision of generic standards includes standards of care, which parallel steps of the nursing process, and standards of professional performance, which relate to professional role behaviors (American Nurses' Association, 1991a).

Over time several state and local nursing

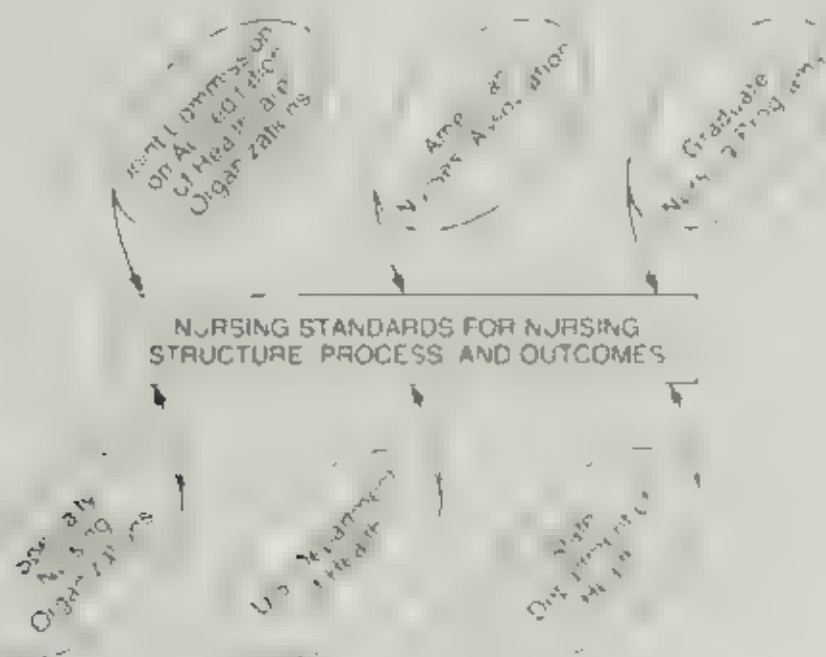


Figure 6-1 Sources of nursing standards.

groups have developed nursing practice standards. Wisconsin nurses, working through their Regional Medical Program, established a set of scaled outcome criteria for major nursing care problems (Zimmer et al., 1974). Nurses at Wayne State University developed rating scales to measure both quality of patient care and competency of nursing performance (Wandelt and Phaneuf, 1972). Nurses at the University of Michigan generated a set of patient care outcomes for each of Orem's five universal self-care requirements (Clinton et al., 1977). Nurses at Duke University Hospital developed process-outcome standards to guide nursing care of patients with different diagnoses and patients undergoing a variety of diagnostic studies (Duke University Hospital Nursing Services, 1983).

TYPES OF NURSING CARE STANDARDS

Different types of standards are used to direct and control nursing actions. Standards can be normative or empirical, depending on the authors' level of aspiration. Normative standards describe practices considered "good" or "ideal" by some authoritative group. Empirical standards describe practices actually observed in a large number of patient care settings. Therefore, normative standards describe a higher quality of performance than empirical standards. Generally, professional organizations, such as the American Nurses' Association and the Association of Operating Room Nurses, promulgate normative standards, whereas law-enforcement and regulatory bodies, such as the state health departments or the JCAHO, promulgate empirical standards (Joint Commission on Accreditation of Hospitals, 1975, 1992; McClure, 1976).

Standards can be differentiated as relating to nursing structure, process, or outcomes (Mason and Daugherty, 1984). Recommended relationships between the nursing department and other departments in a health agency are structural standards, because they refer to the organizational structure in which nursing is implemented. Criteria that specify desired methods for specific

nursing interventions are process standards, because they refer to the process or series of events through which care is administered. Descriptive statements of desired patient care results are outcome standards, because patient results are outcomes of nursing interventions. Thus, structural standards are agency or group oriented, process standards are nurse oriented, and outcome standards are patient oriented. For example, the nursing department's formal table of organization is a structure standard; a patient's nursing care plan is a process standard; a nursing care objective (if written in the form of patient behavior) is an outcome standard.

MEMO CAPSULE

Types of Standards

1. Structure: The patient's nursing case manager is responsible for designing and implementing his discharge plan.
2. Process: The nurse, patient, and patient's significant other collaborate in determining nursing care goals.
3. Outcome: The patient reports that nursing care has increased his ability to care for himself or direct care given by others.

Standards can be classified as general or specific statements of expected quality. For example, Standard V of the American Nurses' Association's Standards of Professional Performance (American Nurses' Association, 1991a) reads: "The nurse's decisions and actions on behalf of clients are determined in an ethical manner." This standard is generally stated. However, the statement is followed by six measurement criteria that clarify that achievement of the standard can be judged by whether or not:

1. The nurse's practice is guided by the professional *Code for Nurses*.
2. The nurse preserves client confidentiality.

3. The nurse serves as client advocate.
4. The nurse delivers care in a nonjudgmental, nondiscriminatory manner and is sensitive to client diversity.
5. The nurse delivers care in a manner that preserves and protects the client's rights, autonomy, and dignity.
6. The nurse seeks resources to help formulate ethical decisions.

As another example, Tucker et al. (1992) present what they term "patient care standards" organized by medical diagnosis or health situation. For each diagnosis or situation, the following information is given: definition; assessment findings; laboratory test results; medical management; nursing interventions; and expected outcomes. For the diagnosis of pediatric asthma, the section on nursing interventions includes the following statements, which can be interpreted as process standards.

1. Monitor pulse, respiratory rate, breath sounds every one to two hours and p.r.n.
2. Maintain humidified environment.
3. Have oxygen via mask or cannula available at the bedside for cyanosis.
4. Minimize nursing care activities to conserve infant's energy.
5. Elevate head of the bed.
6. Administer postural drainage, percussion, and suctioning, p.r.n. as ordered.
7. Bulb-suction nares p.r.n. to clear airway.
8. Administer antibiotics therapy if ordered.
9. Administer riboflavin as ordered per hospital protocol.
10. Monitor for signs and symptoms of cardiac failure. (pp. 780-782)

Recently, the Association of Operating Room Nurses organized proposed standards of perioperative nursing according to steps of the nursing process: assessment; diagnosis; outcome identification; planning; implementation and evaluation. The planning standard states: "The perioperative nurse develops a plan of care

that prescribes interventions to attain expected outcomes." A subsequent interpretive statement gives examples of possible interventions, which include:

1. Providing preoperative teaching related to the surgical intervention and operating room nursing care
2. Identification of the patient
3. Verification of the surgical site
4. Verification of the operative consent
5. Positioning according to physiological principles
6. Adherence to aseptic principles
7. Assurance of appropriate and properly functioning equipment and supplies
8. Provision of comfort measures and supportive care
9. Environmental monitoring and safety
10. Evaluating outcomes in regard to identified interventions
11. Communication of intraoperative information to significant others and health care team to ensure continuity of care. (Association of Operating Room Nurses, 1991, pp. 812-813)

The standards developed by any authoritative body should be organized into a logical working system. Lang and Marek (1990) identified 15 categories of patient outcomes for which care standards could be developed: physiological outcomes; psychosocial measures; functional status; behavioral outcomes; knowledge; symptom control; home maintenance; well-being; goal attainment; patient satisfaction; safety; and resolution of nursing diagnosis. Publication of these patient outcome categories may stimulate nurse specialists to construct standards in each category for patients with common nursing diagnoses.

The American Nurses' Association's Care Standards focus on the client of nursing and follow the chronology of the nursing process: assessment; diagnosis; planning; implementation; and evaluation. Nursing standards developed by the JCAHO focus on the nursing de-

partment as a whole: its structure; function; policies; procedures; and methods. Many standards developed by the Association of Operating Room Nurses relate to aspects of operation room nursing practice that protect the patient from incidental or iatrogenic injury during the intraoperative period, such as *Recommended practices for radiation safety in the operating room* (Association of Operating Room Nurses, 1985) and *Recommended practices for sterilization and disinfection* (Association of Operating Room Nurses, 1987).

As treatment innovations increase health care costs, the public pressures health care professionals to provide higher quality care at less cost. To encourage professional accountability, the American Nurses' Association has developed standards of professional performance relating to the following aspects of the professional role: care quality; performance appraisal; continuing education; collegiality; ethical behavior; collaboration; research; and resource utilization (American Nurses' Association, 1991a). In addition to standards developed by the professional organization, nurses in each health agency should develop setting-specific nursing practice and care standards. Individuals are most apt to support standards they have helped to formulate. Therefore, nursing standards for each health agency should be developed by nurses representing all hierarchical levels and specialty groups in the nursing department.

ORGANIZING STAFF FOR STANDARDS WRITING

The vice-president of nursing and nurse administrators can help agency nurses to formulate nursing standards by organizing a nursing standards task force that includes representatives from all clinical areas. Input for standards development should include a statement of nursing philosophy and objectives; ranking of nursing priorities; a nursing theory to guide decision making; and identified nursing actions for which standards are needed. Many nursing de-

partments develop a statement of nursing philosophy and objectives to meet requirements of regulatory and accrediting agencies but fail to use these statements to guide policymaking. The nursing department's statement of philosophy and objectives can be used by the standards task force to identify the nursing group's level of aspiration and primary focus of interest.

Relationship of Nursing Theory to Standards

When nursing department employees have identified their common beliefs and intentions, the group should adopt a nursing theory to organize working facts and concepts into a comprehensive system. A nursing theory is an effective guide to practice when it identifies nursing client, defines the goal of nursing care, and specifies the nursing actions needed to achieve desired goals. Theory development is exceedingly time-consuming. Therefore, nursing department employees should select an existing nursing theory that, in the opinion of the majority, best describes nursing reality in that setting.

The purpose of a scientific theory is to describe, explain, and predict some portion of empirical experience. Dorothea Orem's theory of nursing describes patients as self-care agents and defines the purpose of nursing as helping individuals to accomplish self-care that promotes health, facilitates recovery from disease, and facilitates peaceful death (Orem, 1985). Martha Rogers's theory describes a person as a biological energy field in direct and continuing interaction with other energy fields in his or her immediate environment. Rogers claims that the proper goal of nursing is to promote symphonic interaction between human and environmental energy fields so as to maximize the individual's health potential (Rogers, 1970). Sister Callista Roy's theory of nursing postulates that man is a biophysical being in constant interaction with a continuously changing environment. Roy defines the goal of nursing as the promotion of man's innate and acquired mechanisms for adaptation to situations of health and illness (Roy, 1981). According to Betty Neuman's systems

model (Neuman, 1982), man consists of a core of basic energy that makes life possible and is surrounded by three hypothetical boundaries. The innermost boundary, lines of resistance, includes the body's homeostatic systems and serves as the person's ultimate defense against environmental stress. The second boundary, normal lines of defense, includes such acquired abilities as intelligence, positive attitudes, problem-solving skills, and coping abilities, which defend the person against environmental risks and can be mobilized to resist unavoidable risks. The third boundary, flexible lines of defense, includes specific health-protecting and health-promoting behaviors, such as rest, exercise, diet, and social recreation. Neuman claims that the goal of nursing is to assist clients to attain maximum health through purposeful interventions that increase flexible lines of defense or decrease environmental stress.

Harper (1984) applied Orem's theoretical constructs in studying self-care medication behaviors of elderly hypertensive females who attended an inner-city primary care clinic. Subjects who received instruction that supported personal responsibility and control over medication self-care showed greater compliance and fewer medication errors than control subjects who received instruction about the pathology of hypertension without emphasis on self-care responsibility. Smith (1986) applied Rogers's theory in studying effects of auditory input on perceived rest of healthy adults. Findings supported Rogers's principle of integrality, because varied patterns of auditory input were perceived to be more restful than quiet ambience. Limandri (1986) claims that Roy's adaptation theory is an effective basis for clinical practice and research with abused women. According to Roy's model, when the amount of stress presented to an individual exceeds her or his tolerance, an adaptive response is generated. The adaptive response is mediated by a regulator mechanism (physiological response that prepares the individual for fight or flight) and a cognator response (problem solving process).

According to Roy, the function of nursing is to assist a patient to manipulate internal and external stimuli to optimize regulator and cognator responses. The nurse can assist an abused woman to identify physiological manifestations of fear and anger (muscle tension, headache, fatigue) and improve her problem-solving skills (protect children from abuse, find a place to live, seek legal help). Story and Ross (1986) used Neuman's systems model as the basis for their family-centered Community Health Nursing course at the University of Ottawa. Neuman's emphasis on the circular nature of prevention-intervention strategies is well suited for a course that advocates nurses' support of family self-help behavior.

• MEMO CAPSULE •

Information Base for Standards Development

- Nursing mission: Central purpose of nursing department
- Nursing philosophy: Beliefs about person, health, nursing, environment
- Nursing goals: Department aims for patient care, cure, comfort, education
- Nursing theory: Set of concepts and principles to explain nursing phenomena
- Research findings: Evidence to clarify meanings, relationships
- Staff aspirations: Level of desire to achieve difficult or noble intentions
- Technological wherewithal: Systems, equipment, supplies to support nursing
- Legal restrictions: Laws, regulations that define nursing functions and actions
- Public expectations: Nursing care outcomes anticipated by patients, family

Topics for Standards Development

After nursing personnel agree on nursing philosophy, objectives, and theoretical orientation, nursing department members should decide

whether to write normative standards (ideal practice) or empirical standards (usual practice) to guide individual nurses' performance. The nursing standards task force should then identify topics for which standards will be constructed. If impetus for standards development derived from a new quality-improvement program, the first topics for which care standards would be developed might be patient diagnoses of high incidence in the agency. If importance for standard development resulted from a new peer-review program, the first topics for which standards of professional performance would be developed might be performance evaluation and collegiality.

If the nursing standards task force decides to focus their attention initially on standards that will upgrade patient care outcomes, they should begin by identifying all aspects of existence that patients expect nursing interventions to optimize. Maslow's (1970) hierarchy of human needs identified several human needs that can be satisfied through nursing interventions. Nursing actions can satisfy: physiological needs for oxygen, fluid, or nutriment; stimulation needs for novel experience and manipulation of objects; safety needs for protection against physical injury; affection needs for unconditional positive regard from significant others; esteem needs for respectful treatment by family and caregivers; and self-actualizing needs for developmental growth and personal achievement. The following nursing standards, drawn from the American Nurses' Association's *Standards of maternal and child health nursing practice* (American Nurses' Association, 1983), relate to the six levels of human need outlined in Maslow's hierarchy:

1. *Physiological needs:* The nurse initiates emergency interventions to facilitate survival.
2. *Stimulation needs:* The nurse provides anticipatory guidance concerning changes in health and developmental status.
3. *Safety needs:* The nurse monitors hazardous environments.
4. *Affection needs:* The nurse creates opportunities and support for successful parenting behaviors.
5. *Esteem needs:* The nurse suggests strategies for environmental support by family and significant others.
6. *Self-actualizing needs:* The nurse creates opportunities for clients to exercise control and move toward self-care and independence.

If nursing personnel desire standards to guide the conditions, methods, and outcome of nursing activities, they may write a set of general care standards and amplify each general standard with a set of structure standards, a set of process standards, and a set of outcome standards. The American Nurses' Association's *Standards of psychiatric consultation-liaison nursing practice* (1990) are organized in this fashion. For example, Standard V-D in this document reads: "The psychiatric consultation-liaison nurse specialist uses advanced clinical expertise in individual, group, and family psychotherapy and other treatment modalities to function as a psychotherapist, and recognizes and accepts professional accountability for nursing practice." This standard is further clarified by four structure criteria, fourteen process criteria, and three outcome criteria. One structure criterion states: "A mechanism for peer review exists within the agency or is established by the nurse in solo or group practice." One process criterion states: "Foster increasing personal therapeutic responsibility on the part of the client." One outcome criterion states: "The client articulates the elements of the therapeutic contract."

Within each framework (i.e., normative or empirical standards; structure, process, or outcome standards) nursing personnel should specify the practice areas needing control through standards implementation. The purpose of stan-

dards is to improve care quality while containing cost. Therefore, standards are frequently focused on ameliorating symptoms, eliminating hazards, facilitating treatment, preventing complications, and hastening rehabilitation. The following are examples of standards from the American Nurses' Association's *Standards of child and adolescent psychiatric and mental health nursing practice* (American Nurses' Association, 1985b) that address each of the foregoing topics:

1. *Eliminate symptoms:* The nurse sets limits in a humane manner with the least restrictions necessary for assuring the safety of client and others.
2. *Eliminate causes of injury:* The nurse uses crisis intervention to promote growth and aid the personal and societal integration of the child or adolescent and family in developmental crises, situational crises, or suicidal crises.
3. *Facilitate treatment:* The nurse uses daily situations as a means for therapeutic interventions.
4. *Prevent complications:* The nurse provides for continuity of care for the child or adolescent and family in the therapist's absence.
5. *Foster rehabilitation:* The nurse provides anticipatory guidance to the child or adolescent and family regarding situational and developmental needs.

Standards Task Force

In organizing nursing personnel to construct practice standards, the director of nursing should appoint a task force to spearhead the project. One member of the task force should be a nursing administrator who is thoroughly familiar with the agency's purpose, philosophy, goals, financial constraints, and personnel resources. If this nurse administrator also possesses strong group dynamics skills, he or she

should be chairperson of the task force. The task force should include clinical nurse specialists representing several nursing divisions, a head nurse or patient care manager who is thoroughly versed in staffing strategies, a charge nurse who is skilled in coordinating work of diverse caregivers, and a staff nurse with experience in more than one clinical specialty. Task force members should enjoy group work and demonstrate high-level clinical and verbal skills. A task force so constituted will facilitate input from employees at different hierarchical levels and experts from various nursing specialties.

After task force members have developed the first draft of nursing care and professional performance standards, the proposed standards should be submitted to a sample of nurses in the agency for evaluation (Fig. 6-2). Each standard should be analyzed for its applicability, suitability, and efficacy in improving patient care or fulfilling the professional role. While evaluating each standard for its utility, nurse reviewers should screen the standard for clarity, measurability, and achievability. A standard must be understood by nursing personnel in many settings in order to guide practice. A standard must describe behavior that is overt and measurable to be used in judging care quality and professional performance.

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- Check patient's skin daily for evidence of pressure, shear, or irritation.
 - Implement patient's change of position every two hours round the clock.
 - Ensure patient's daily fluid intake of 2,500 cc.
 - Provide range of motion of all upper and lower extremity joints twice daily.
 - Explain purpose and character of each nursing measure before implementation.
-

Figure 6-2 Sample nursing process standards, rehabilitation nursing.

A standard must be achievable with reasonable effort to motivate nurses to improve performance.

LEGAL SIGNIFICANCE OF STANDARDS

Malpractice suits against nurses are based on the charge that the patient was injured as a consequence of the nurse's failure to meet the appropriate standard of care (Rosen, 1986b). To recover losses from a charge of malpractice, a patient must prove that (1) a patient-nurse relationship existed such that the nurse owed the patient a duty of due care; (2) the nurse deviated from the appropriate standard of care; (3) the patient suffered damages; (4) the patient's damages resulted from the nurse's deviation from the standard of care (Rosen, 1986a). The courts may use either state or national standards in determining negligence. However, there is a trend toward the use of national standards, which may make standards prepared by nationwide organizations more influential than standards developed by state or local bodies (Fiesta, 1986). Therefore, nurses should familiarize themselves with the American Nurses' Association's Standards of Nursing and standards prepared by various specialty nursing organizations and use these as guides to action.

As nursing care standards become more numerous, practicing nurses may be confused about which standard to aim for in a particular employment setting. Confusion is most likely when higher- and lower-level standards exist (some standards describe "ideal" and others describe "acceptable" levels of care). This problem is accentuated by the growing demand for nationwide standards. Recent case law has established that a person claiming to be a specialist should be held to the same degree of skill and knowledge as expected of a reasonably competent practitioner in that specialty (Clark and Garry, 1991). Therefore, when care standards exist for a particular pa-

tient condition or problem, a nurse who is ignorant of the standard will probably be unable either to provide appropriate patient care or testify why he or she did or did not employ a particular measure in caring for the patient.

A professional nurse's duty to a patient is to use the same degree of knowledge, skill, and care as would be used by a reasonably prudent person with the same level of knowledge and skill under similar circumstances. The nurse also has a duty to her or his employer to adhere to professional standards of care. A hospital or other health agency may sue a nurse employee whose practice behavior violates that agency's written care standards or policies (Clark and Garry, 1991).

REVISION OF NURSING CARE STANDARDS

Each descriptive statement of desired quality (whether a care standard or performance standard, a structure, process, or outcome standard) should be considered a temporary working model. A standard should be seen as a working model, because through use nurses may find it unclear, unworthy, inapplicable, or unachievable, in which case the standard should be rewritten or abandoned. A standard should be considered temporary, because, as nursing theory evolves, standards should be updated to reflect a higher level of desired performance (Fig. 6-3).

Of course, the mere existence of nursing standards does not ensure their implementation by nursing personnel. According to Ott (1987), lack of standard implementation occurs either because nurses do not know the standards exist or are confused about proper documentation with reference to standards. Ott recommends that the manager of each nursing unit create a "Standards of Nursing Care Resource Book," which lists standards specific to the unit, gives examples of written documentation that signifies that selected care mea-

Hospital XYZ
Care-Outcome Standards
(spinal cord injury patients)

A. Physical welfare

1. Body temperature ranges between 97.6 and 99.6° F.
2. Skin is clean and free of discoloration, irritation, abrasion, infection, and ulceration.
3. Urine elimination is managed without spillage through evening fluid restriction and condom catheter or self-catheterization.
4. Stool commence with Q O D Dulcolax suppository bowel program.
5. Lungs are clear at auscultation.
6. Urine culture shows less than 10⁵ bacteria/mm³.
7. No episodes of autonomic hyperreflexia.

B. Emotional welfare

1. Participates actively in physiotherapy, occupational therapy, and recreational therapy sessions.
2. Performs self-care measures as instructed: evening fluid restriction, self-catheterization, position change, cough and deep breath, etc.
3. Verbalizes plans to modify premorbid life style to accommodate changed abilities.
4. Demonstrates and accepts affection to and from significant others.

C. Social welfare

1. Initiates friendly overtures toward other patients, professional caregivers, visitors.
2. Voluntarily joins formal and informal groups and participates in group activities.
3. Verbalizes plans to modify premorbid social and recreational activities to permit continued participation on a limited or different basis.
4. Asks for information about vocational opportunities for persons with quadriplegia or paraplegia.

Figure 6-3 Sample of nursing care standards.

asures meet relevant standards, and describes the quality-monitoring process that is used to measure nurses' adherence to established standards.

SUMMARY

Goals and objectives indicate *what* is to be accomplished by a health care employee or primary work group. Standards indicate *how* each responsibility should be fulfilled. A normative standard describes the *ideal* manner of performing a selected care measure or role behavior. An empirical standard describes how a

particular care measure or role behavior is implemented in the majority of health care settings. A standard can be constructed to specify the circumstances under which action is to be performed (structure standard), nature of the action (process standard), or expected outcomes of action (outcome standard). Standards that guide practice in a particular nursing specialty should be developed by experts in that specialty, be research based, be continually updated, and be communicated to practitioners in writing and by the example of clinical leaders.

RESEARCH BRIEF

Testing the Effectiveness of a Nursing Process Standard

Purpose: Check need for continuous monitoring of patient's vital signs throughout transfusion process. Information was needed to develop a cost-effective, safe nursing procedure (process standard) for administering blood products.

Method: Investigator developed a data-collection instrument to record information about patient's age, sex, blood type, allergies, pregnancies, number and dates of previous transfusions, and 18 signs or symptoms of transfusion reaction (identified through literature review). Data were obtained through chart review and scrutiny of transfusion record.

Findings: Sample ranged in age from 21 to 97. Forty-four percent were men; 56 percent women. Twenty-four percent had known history of allergies. Subjects' blood types were: O+ = 47 percent; A+ = 32 percent; B+ = 21 percent. Thirty-five percent of sub-

jects had other transfusions during hospital stay. Most common symptoms of transfusion reaction were (1) fever 62 percent; (2) chills 50 percent; (3) rash 24 percent; (4) itching 16 percent; (5) elevated blood pressure 15 percent; (6) dyspnea 12 percent. In 62 percent of cases, the transfusion was completed before the reaction was noted.

Application: These findings do not support use of nursing time for extensive monitoring of patient's vital signs throughout the transfusion process. In these subjects, change of vital signs was minimal and always accompanied by other signs and symptoms. The study showed that, if nursing time per transfusion decreased by only 15 minutes, there would be savings of 750 hours of nursing care and \$8,200 personnel costs (at \$11/hour) for 3,000 transfusions.

Source: Casler B, and Wagner P. Development of a standard of time-effective patient assessment during blood transfusion. *Journal of Nursing Quality Assurance* 1(2): 66-71, 1987.

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III

ORGANIZING

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Organization Structure

Reorganization of the formal structure should be done as frequently as major surgery. It should be as well planned and as swiftly executed.

ROBERT TOWNSEND

OBJECTIVES

After reading this chapter, you should be able to:

1. Draw a diagram of the formal organizational structure of your nursing department.
2. Describe one advantage and one disadvantage of each of the following organizational structure:
 - a. Pure line
 - b. Line and staff
 - c. Functionalized line and staff
 - d. Matrix
 - e. Shared governance
3. Explain the relationship between responsibility and authority under ideal circumstances
4. Describe the effect of delegation on the manager's responsibility for the delegated function.
5. Indicate the ideal size for a working committee and the consequences of constructing a committee smaller or larger than the ideal size.

Each organization has a formal and an informal structure that governs work flow and interpersonal relationships. The formal structure is planned and publicized; the informal structure is unplanned and covert. The nurse manager should be thoroughly familiar with both in order to use them appropriately.

An organization's formal structure is the official arrangement of positions into patterns of working relationships that coordinate the efforts of workers with diverse tasks and abilities. The formal structure of a nursing department should support agency goals and nursing philosophy and objectives. Therefore, nursing's

formal structure should be determined by the nurse executive and nurse managers, with input from various nurse specialists in the department.

The official table of organization reveals how each nursing position relates to every other and how the nursing department relates to other departments in the institution. Nursing positions can be configured in a number of ways to accommodate differences in group mission, agency size, personnel preparation, and task complexity. As the nurse administrators are responsible for designing the department's formal structure, they should understand the effects of different structure designs on human behavior.

The formal organization diagram is a system of power and control, a map of communication channels, and a scheme for assigning tasks to the most qualified workers (Brass, 1981). The diagram is used at various times to clarify one or another of these functions.

The informal organization structure consists of unofficial personal relationships among workers that influence work effectiveness. The quality of a manager's interpersonal relations derives from her or his leadership skills and personal qualities. The quality of staff nurses' interpersonal relationships derives from their communication and group dynamics skills. Formal and informal organization structures are complementary. Therefore, a nurse manager can use nursing's informal structure to compensate for shortcomings in its formal structure.

FORMAL TABLE OF ORGANIZATION

Usually, nurse administrators are motivated to revise the department's formal organization only by a major internal or external stimulus, such as an unfavorable accreditation survey; institutional merger; sudden work force contraction; implementation of a new service program; or major change in agency mission. However, the continuous, subtle, evolutionary changes that occur in the agency's day-to-day functioning may necessitate position realignment every few months or years. Therefore, the department's table of organization should be updated

annually and circulated to all members of the department.

The principal purpose for defining and updating the organization diagram is to clarify chain of command, span of control, official communication channels, and liaison links for all department personnel. Ideally, the formal organization should legislate relationships, so the efforts of each employee complement and augment group efforts and work-related information is transmitted accurately and rapidly throughout the organization.

Diagramming Organization Structure

It is customary to portray formal organization structure in diagrammatic form, although a three-dimensional model would provide more complete information about organization functioning. If a three-dimensional model were used, the organization would be perceived as having depth, as well as height and width. Several conventions are followed in depicting a formal table of organization. Each position is given a brief title that broadly defined position responsibilities. Because the tasks associated with a position change with improved technology and practice standards, position titles change through time. For example, the head nurse title has been replaced in some agencies with one of the following: patient care supervisor, patient care coordinator, patient care manager (del Bueno, 1987) to emphasize the individual's focus on patient concerns and participative leadership. Each position title is enclosed in a box. Boxes containing various position titles are positioned vertically and grouped to highlight differences in status and responsibility. The distance of a position title from the top of the chart indicates the relative status of that position within the total organization. Position boxes are connected with lines to demonstrate the flow of communication and authority throughout the entire network. In some structure diagrams, different types of interconnecting lines signify different types of relationships. For example, a solid line between two positions indicates direct

authority or command-giving relationship. A dotted line indicates a communication channel of frequent use through which commands do *not* flow. A dashed line indicates a consulting relationship with no prescribed frequency of use that enables key persons in different parts of the structure to collaborate for planning or control purposes.

The primary significance of formal organization structure is the fact that it controls the type and frequency of communication between particular staff members (Laliberty and Christopher, 1984). The table of organization decrees that, in official business matters, a particular worker is expected to relate directly with certain individuals and not others. For instance, Division Director Smith must give direction to and receive reports from specific unit managers and not others. In this sense the formal organization structure restrains worker behavior.

A graphic table of organization clarifies nursing department size, extent of functional differentiation, degree of vertical stratification, and span of control for each administrator and manager. The organization chart does *not* indicate the *degree* of authority that a manager has over subordinates. A manager with authority to schedule work hours and give assignments to a subordinate may lack authority to hire or fire the worker. A book of organizational policies is needed to interpret the *operational meanings* behind the lines and boxes on the table of organization. A three-dimensional model of organization structure could show that certain positions or employee groups occupy more frontal position than others. In other words, the work of some groups precedes that of others in a task series; and activities of one nursing division are often more visible to agency clients.

Uses for a Formal Table of Organization

If the organization diagram is revised frequently, it can be used for many purposes. When incumbents' names are written into boxes alongside each position title, the chart is useful in orienting new employees to significant per-

sons in their work environment. When the chart is discussed in conjunction with the nursing philosophy, objectives, and productivity measures, it provides a comprehensive overview of nursing functions for important outsiders, such as accreditors, funding agencies, and educational institutions, who need a working knowledge of departmental operations. When compared with flow charts of nursing processes or procedures, the chart can help a systems analyst pinpoint causes for departmental inefficiency.

ORGANIZATIONAL CHARACTERISTICS

Span of Control

In designing the nursing department's table of organization, planners must decide the optimum span of control for the director, division directors, and first-line managers (head nurse, patient care coordinator). Industrial research has shown that the top executive cannot manage as many employees as managers at lower levels. A 1:3 supervisory ratio is common at the top of an organization; a 1:6 ratio is common at the middle; and a 1:20 or larger ratio is common at the base.

The effective span of control for each manager depends on work pace and pattern, workers' skill and knowledge, and amount of worker interdependence (Tzirides, 1993). The top executive must supervise managers of different specialties, although mid-level and first-level managers supervise workers in the same specialty who perform similar tasks, often in a common work area. Therefore, the organizational structure should provide narrower span of control for the nurse executive than for first-level managers. However, the most important factor in determining a manager's optimum span of control is not the number of her or his relationships with subordinates, but frequency and intensity of those relationships (Ivancevich and Mattson, 1987).

A manager who must "cover" another manager's areas as well as her or his own during holidays or vacation knows the disadvantages of too broad a span of control. A manager's

duty is to lead, motivate, evaluate, and correct subordinates. These activities require repeated, close contact with the supervised employee. When span of control is too broad, the manager has insufficient time to observe a representative sample of the employee's work and, so, cannot evaluate performance or determine needed coaching and discipline.

On the other hand, too narrow a span of control creates different, yet equally serious, problems. A manager with few subordinates has time to supervise each one closely. Too close supervision discourages subordinates' problem solving, independent judgment, and creative thinking. Research shows that worker productivity is higher when close supervision is impossible (Drucker, 1967).

Organizational Principles

Basic organizational principles should be considered in designing the nursing department's table of organization and educating personnel to function effectively in the structure:

The Principle of Unity of Command: An employee may interact with many individuals in the course of work but should be responsible to only one supervisor, whose direction can be regarded as final.

The Principle of Requisite Authority: When responsibility for a particular task is delegated to a subordinate, that subordinate must also be given authority over resources needed for task accomplishment.

The Principle of Continuing Responsibility: When a manager delegates a function to a subordinate, the manager's responsibility for that function is in no way diminished.

The Principle of Organizational Centrality: Workers who interact with the greatest number of other workers receive greatest amount of work-related information and become most powerful in organization structure.

The Principle of Exceptions: Subordinates should report only departures from normal functioning, so managers can limit their atten-

MEMO CAPSULE

Organizational Principles

- Unity of command: One boss
- Requisite authority: Control over resources
- Continuing responsibility: Supervise delegates
- Organizational centrality: Information crosspoint
- Manage by exception: Scrutinize the unexpected

tion to events that are unresponsive to routine control mechanisms.

Organizational Concepts

Organization structure determines employee behavior through the effects of role, power, status, responsibility, authority, centrality, and communication.

Role

Role is the set of behaviors and attitudes expected of a person by those with whom he or she interacts. Roles are reciprocal or reflexive. Because one's role is defined by others' expectations, a person is dependent on others for this important aspect of personal identity. Throughout life a person portrays a series of roles, which change with alterations in life circumstances. One begins life as the child of one's parents and, perhaps, the sister or brother of siblings. A few years later one becomes the pupil of one's teachers. Later one becomes a friend to some acquaintances, lover to another, spouse to another, parent to children, employee to an employer, and, perhaps, mentor to an associate.

As a health agency employee, a nurse may occupy several occupational roles at the same time. A head nurse is a subordinate to a division director, manager to staff nurses, peer to other head nurses, maybe committee chairperson or consultant to employees in other divisions. Dif-

ferent attitudes and behaviors are called for in each role, so the head nurse must "change costume" frequently, readjusting facial expression, body language, vocal tone, and language to meet expectations of those others who define each role.

Power

Power is ability to influence another to behave in accord with one's wishes. Power develops from interactions with others and, so, is continuously changing. The power that one possesses facilitates the acquisition of additional power, as a consequence of others' attitudes and behavior toward the powerful. The reverse is also apt to occur. A manager's loss of power may alter her or his relationships in such a way as to cause continuing power loss over time. Nurses who abdicate personal power and rely on bureaucratic hierarchy for protection risk additional power loss at the hands of their agency "protectors." Nurses who rely on the hierarchy for protection tend to relinquish job autonomy and wait for "administration" to set nursing standards and procedures, expect supervisors to defend them from criticism, and hope for employers to shelter them against negligence claims. The assumptions underlying formal organization structure encourage managers to exercise power by sending authority-laden influence messages to subordinates through official communication channels.

There are many types of power. *Reward power* is the ability to provide rewards to another. The manager may reward an employee with a salary raise, preferred shift assignment, or opportunity to attend a continuing education program. *Coercive power* is the ability to apply punishment to another. The manager may punish an employee through demotion, suspension, or firing. *Referent power* is a person's ability to inspire admiration, so that others identify with the individual, adopting similar behavior and attitudes. A nurse manager would know that he or she has referent power over a subordinate if

the employee mimics his or her behavior and interests. *Expert power* is the ability to convince others that one possesses a high degree of knowledge and skill in a specialty area. A manager has many opportunities to convince others that she or he is a persuasive speaker, a skilled counselor, a capable teacher, or an expert nurse.

There is a reciprocity in power giving and power taking between a manager and employees. The person who exerts power over another is dependent on that other for the freedom to exercise power. Because power is interpersonally generated and has several bases, it is possible for a subordinate to exert power over a superior. A clinical nurse specialist in the Surgical Intensive Care Unit may wield referent power over nonsubordinate staff nurses who hope to emulate the specialist's confident, efficient performance under stress. The same clinical specialist may exert expert power over the head nurse of the Critical Care Unit, the surgical nursing supervisor, or the surgical resident whose patients she treats, if they rely on the clinical specialist's skills to accomplish their own work goals.

Organizations differ with regard to the amount of power given individual nurses to participate in management decisions. In some agencies the director of nurses is a member of the Chief Administrative Council. In some of these, she or he has the same rights and responsibilities as other members of the Administrative Council (i.e., takes part in all discussions, votes on all issues, and makes suggestions that others act on). To determine nurses' decisional power in an agency, it is helpful to consider answers to the following questions. How many staff nurses are appointed to planning and control committees in the nursing department? From which levels of nursing hierarchy are committee members chosen? Do all appointees have full membership rights on departmental committees? From which hierarchical levels are committee chairpersons selected? Are committee chairpersons appointed or elected? How many nursing

staff members hold membership on committees appended to hospital administration or medical staff organizations? Is there a nurse representative on the Operating Room Committee; the Infection Control Committee; the Safety Committee; the Equipment Standardization Committee; the Finance Committee; the Quality-Improvement Committee; the Risk-Management Committee; the Critical Care Committee; the Disaster Committee; the Medical Staff Committee? From which levels of nursing hierarchy are these nurse representatives drawn?

Status

The concept of status is related to the concept of power. Status is the rank a group confers on a person in accord with the group's estimation of the person's value and significance to group goals. The degree of status accorded a particular position, or incumbent, depends on his or her distance from the top of the organization hierarchy, amount of skill and education required, amount of responsibility given, and salary level.

Sociological research has shown that the attribute that earns greatest reward for group members confers maximum status on the person who possesses a great amount of that attribute. If self-confidence epitomizes the nursing staff's ideal of leader behavior, a nurse executive who appears self-confident and poised in dealing with union leaders, hospital directors, accreditation visitors, and other executives achieves high status in the group. If a manager's self-assertion or opposition to authority reflect employees' needs for personal recognition and control, a shop steward who aggressively supports employees' demands achieves high status among union members.

Each nurse's status depends, in part, on the position of the nursing department relative to other departments in the agency. A group's status is related to its ability to secure resources for goal attainment. Nursing goals for patient care and cure are as important to patient welfare as medicine's treatment goals or administration's financial goals. For nurses to obtain

power to improve patient care quality, the nurse executive must be coequal in organization structure with the medical director and director of nonclinical services. However, a nurse executive would be unlikely to obtain equality with other agency executives (and could not long retain it), unless he or she were skilled in negotiations, fiscally responsible, systems-oriented, clinically knowledgeable, flexible, and a forceful communicator.

When the nurse executive's position is at the same hierarchical level as that of the medical director and nonclinical service director, the nurse executive's salary is likely to fall within the executive range. At this level it is easier for the nurse executive to negotiate salaries for nurse managers and clinical specialists that will attract candidates with the education and experience needed for effective leadership.

There are other advantages in having the nurse executive's position near the top of organizational hierarchy. Studies show that the higher one's organization rank, the higher one's status in the agency, and the higher one's status, the higher one's self-esteem and level of physical and mental health.

Responsibility

Responsibility is the obligation to account for one's conduct with respect to an assigned task. That is, an employee is expected to complete the tasks outlined in her or his position description according to performance criteria included in that document. Furthermore, the employee is expected to answer questions from an appropriate superior concerning the execution of assigned tasks.

Authority

The concept of authority is bound to the concept of responsibility. Authority is a person's right to make decisions and take action without approval by higher administration, *plus* the right to extract obedience from others (Ivanecovich and Mattson, 1987). Positions at the top of organization hierarchy carry high levels of

responsibility and authority. Therefore, high status is associated with high authority (Hein and Nicholson, 1982). Some of the responsibility and authority accorded a high-status job may be delegated to employees at lower levels. However, when a manager delegates responsibility for a function to a subordinate, the manager's responsibility for the function is unchanged. If a manager who is responsible for submitting a monthly quality-improvement report to the vice-president of nursing delegates that task to a staff nurse, and the staff nurse fails to submit the report by the due date, the *manager* is answerable for the missing report.

When responsibility for a particular function is delegated to a subordinate, the subordinate should be given authority over resources needed to perform the function. Authority is organizationally sanctioned power to direct the behavior of another. Authority is never absolute. A manager may have the authority to give directions to selected head nurses or staff nurses and the authority to discipline them for cause, but lack authority to hire and fire the same nurses. The vice-president of nursing may have the authority to hire and fire nurse managers, but there will be limitations on both activities. For example, the vice-president may be able to hire a clinical specialist but may have to advertise the position as specified by the nurses' labor

contract. The vice-president may have to limit the selection to applicants who meet the educational and experiential criteria established by the agency's personnel department, nurses' bargaining unit, or nurse administrator group.

Centrality

Organizational centrality refers to the fact that some positions are so located in the organization's structure that the incumbent communicates frequently with many other workers. In contrast, other positions are so located that the incumbent sends and receives few communications. Using the agency's table of organization, one can count the interchanges through which a message must pass from each position to every other in the network. The sum of steps for a particular position is that position's *total organizational distance*. Adding the total organizational distances for all positions and dividing by the number of positions yields the *average organizational distance* for that structure. Comparing each position's total organizational distance with the *average* organizational distance for the structure reveals each position's *relative organization distance*. Employees (positions) with the smallest relative organizational distance are most central in the structure. They receive more work-related information than do less central workers. Information is raw production material for such knowledge workers as professional nurses. Therefore, workers with greater centrality are likely to be more productive than those in peripheral locations.

Studies show that the amount of information given a worker affects the quality of her or his work (Bavelas, 1968). Furthermore, more centrally located employees are more inclined toward leadership than those in peripheral positions (Hirota, 1953).

Communication

Communication is the facilitator for all work by a group of people. Communication consists of the transmission of information and opinion

MEMO CAPSULE

Organizational Concepts

- Role: Scripted behavior
- Power: Push-pull force
- Status: Rank recognition
- Responsibility: Obligation to account for actions
- Authority: Clout, sanction
- Centrality: Least organization distance from all other workers
- Communication: Transmit information, opinion

between persons. Effective transmission requires the initiation of a clear message by the sender and accurate perception of the same message by the receiver. Some claim that efforts to improve communication should begin with teaching persons how to listen and read critically. Therefore, managers should be trained to discern covert aspects of the sender's message by "reading" gestures, facial expression, body language, inflection, speed of delivery, hesitations, and omissions. They should also be taught to summarize and analyze information when the speaker pauses, repeats, or digresses during message delivery. Managers should be trained to organize, repeat, and summarize information to maximize receiver's comprehension. They should also be taught to reinforce verbal content of each message with appropriate expressions and movements, to highlight key concepts, and to elicit feedback from the recipient as a check on communication effectiveness.

One check on communication quality is to compare the number of downward (mostly authoritarian), upward (mostly defensive), and lateral (more egalitarian) messages transmitted through the structure during a specified time interval. For example, if the majority of messages are transmitted downward, with far fewer upward transmissions and almost no lateral transmissions, one could conclude that participative management is absent.

An organization's formal structure also limits and focuses communications between employees. Research in industrial and business organizations reveals that messages moving downward through formal channels are usually authoritative commands. Messages moving upward through formal structure usually contain feedback information about work in progress. Unfortunately, some information omission and distortion occurs at each interchange in the communication chain. Information about work problems is less likely to be relayed from workers to administrators than is more favorable information. Message omissions and distortions result from perceptual differences and lower-

level workers' reluctance to give the "boss" bad news.

Horizontal communication through the formal structure is more rapid and effective than downward or upward communication. The bureaucratic hierarchy discourages and matrix organization structure encourages lateral communication.

Centralization versus Decentralization

The degree of centralization or decentralization of management responsibility affects both agency productivity and staff morale. In a highly centralized organization, most decisions are made by the chief executive. Decentralization is the allocation of responsibility and authority for management decisions downward through the chain of command.

A highly centralized organization is most likely to be effective in a long-established, well-organized institution with unchanging operations and stable environment (Webber et al., 1985). Decisions made at the apex of the organization must be communicated through more intermediaries to reach direct care personnel than decisions made at lower levels. Therefore, highly centralized organizations are slow in adapting to major change. Control of decision making by a few high-status administrators excuses rank and file workers from critical thinking. Eventually, lower-level workers become passive, unenthusiastic automatons.

A high degree of centralization makes it difficult for the head nurse to function as manager. When most management decisions are made by the top executive, the head nurse becomes a liaison officer between administrators and unit caregivers. Consequently, middle-management functions (leading, motivating, coordinating, evaluating, counseling) are neglected and caregivers are demoralized.

A nurse executive needs long periods of uninterrupted time in which to plan total nursing operations. To acquire blocks of time, the executive must delegate some administrative responsibilities to subordinates to avoid the petty

details associated with daily operations. An executive who will not delegate some responsibilities forces subordinates to work below their full capacity. The executive who will not permit clinical division directors to select personnel, redistribute staff among units, determine staff schedules, institute work improvements, evaluate goal achievement, and recommend policy change deprives middle managers of opportunities for professional growth. An executive's inability to delegate is manifested if he or she is so busy directly supervising managers that there is insufficient time for strategic planning and community relations.

To delegate work effectively, an executive or administrator must describe the task(s) to be performed, authorize needed resource expenditures, and oblige the subordinate to task completion by a specified date (Callahan and Wall, 1987). After delegating a task to a subordinate, the executive should follow up on the delegation to ensure successful and timely performance.

Decentralization of responsibility leads to improved employee morale (Binder, 1983). Recently, nurses at all hierarchical levels have sought increased control over working conditions. In negotiating labor contracts, nurses bargain for the right to set staffing ratios, establish care standards, attend staff-development classes, and bargain for improved salary and fringe benefits. When middle managers are given responsibility for crucial decision making, they usually decentralize decision making still further, empowering caregivers to formulate unit-level work plans, policies, and procedures.

As job responsibility and autonomy increase, so does job satisfaction (Przestrzelski, 1987; Shoemaker and El-Ahraf, 1983). Therefore, the decentralization of management responsibility is likely to improve staff nurse morale and retention. It is one way to provide job enrichment, which is defined as adding certain tasks normally associated with a higher job classification to the job description of a lower-level employee.

Because distortions and omissions are possible during any message transmission, vertical

lengthening of a line organization impairs communication between the executive and direct caregivers. In a many-layered nursing department, the executive may decide to improve vertical communication by eliminating one or two job levels to "flatten" the structure. One way to flatten the structure is to eliminate the supervisor position and have the patient care coordinator on each unit report directly to the clinical division director. Another way is to eliminate the unit head nurse position and have primary nurses from several patient units report to a patient care coordinator who facilitates nursing care on two or three units (Singleton, 1988). On the other hand, some experts advise that the head nurse position should be retained and enriched when a nursing department is decentralized, to provide a strong manager who can make high-quality decisions at the point where clients receive service. The head nurse's tasks in a decentralized organization are similar to a nurse administrator's tasks in a highly centralized organization. Therefore, the head nurse in a decentralized organization, like the executive in a centralized organization, should be supported by expert staff specialists. Clinical specialists, nurse practitioners, nonnurse unit managers, and patient ombudspersons all provide valuable back-up services to a head nurse with weighty management responsibilities.

TYPES OF FORMAL ORGANIZATION STRUCTURES

Several types of formal organization structure have been used in nursing organizations. Generally, nurses become acclimatized to the type of structure in which they are educated or first employed. An occupationally mobile nurse later learns how much structural variation there is from one health agency to another. However, unless attention is called to the matter, nurses may not realize the extent to which their self-image, communication style, career mobility, social contacts, and job satisfaction are conditioned by the structures in which they spend their working lives (Grigsley, 1991).

Most nursing organizations use one of the following structural patterns: line organization, line and staff organization, functionalized line and staff organization, matrix organization, or shared governance.

• MEMO CAPSULE •

Organization Structures

- Line: Simple, rigid
- Line and staff: Support for executive
- Functionalized line and staff: Authority confusion
- Matrix: Free-form, shifting relationships

Line Organization

The pure line organization is the oldest and simplest type of formal structure. According to Simon (1977), in organizations of a certain size, the line structure or pure hierarchy is the type most likely to develop through evolutionary processes. In a new organization, as the amount of work and number of workers increase, there is a tendency to divide work into specialized tasks and organize workers with similar tasks into distinct groups. In a nursing department, work is customarily divided according to clinical nursing specialties, such as medical-surgical, psychiatric, or maternal-child nursing, or according to functional emphasis, such as direct patient care, in-service education, and research.

Pure line structure is a straightforward, direct chain-of-command pattern that emphasizes superior-subordinate relationships (Fig. 7-1). The line organization is more efficient than other structures, because it provides clear authority-responsibility relationships between workers at all levels and requires less information transmission between managers and workers than a more complex organization.

The typical line organization is divided

laterally into segments representing different nursing specialties. The perspective of workers differs from the bottom to the top of the structure. Workers at the base of the pyramid—aides, orderlies, staff nurses—perform the basic work of the nursing mission, that is, direct patient care. Employees in the middle of the structure—head nurses, patient care coordinators, supervisors—are responsible for programmed decision making and direction of day-to-day operations. Personnel at the top of the structure—vice-president or director and assistant directors—are responsible for non-programmed decision making, such as goal setting, program planning, and performance evaluation.

Pure line structure operationalizes the principles of classic, or traditional, organization theory, which are:

1. The organization structure should be as simple as possible to facilitate understanding of role relationships.
2. The organization structure should provide clear-cut authority and responsibility for each position.
3. The work of each employee should be confined to a single function, or group of similar functions, because specialization fosters efficiency.
4. The activities and functions of each employee should clearly contribute to achievement of overall organization goals.
5. Related functions should be grouped under a single supervisor.
6. Each worker should take orders from and be accountable to only one supervisor.
7. To ensure horizontal coordination, institutional rules and policies should be formulated by the top administrator (Filley et al., 1976).

When a nursing department expands to such an extent that managers can no longer supervise the increased number of subordinates, the nurse executive may insert an additional level into bu-

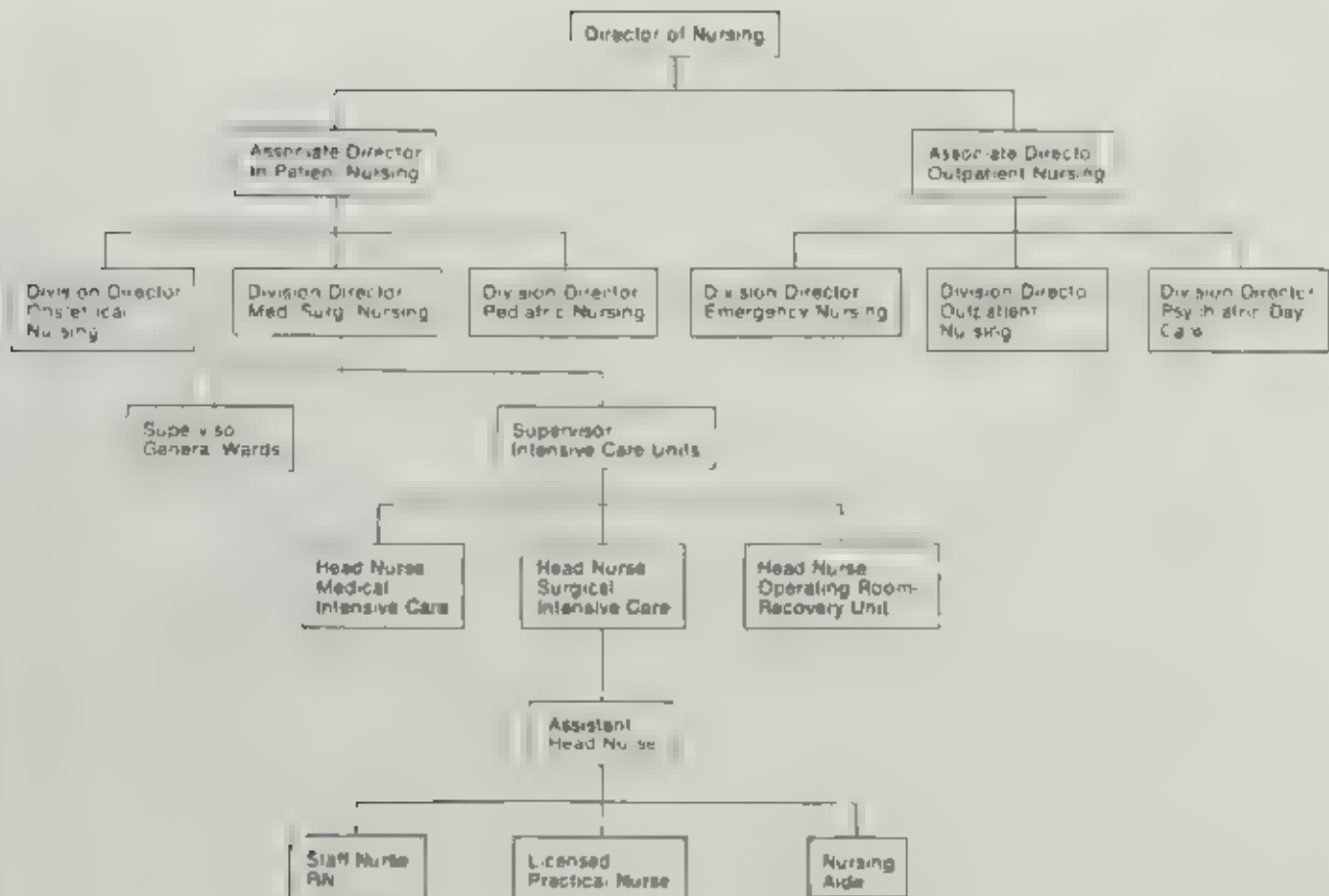


Figure 7-1 Pure line organization.

reducing the span of control to decrease each manager's span of control.

Advantages of line organization

Line organization is still used in some nursing organizations like a department of nursing in a hospital, because it has several advantages. It is easy to orient new employees to a line organization, because interpersonal relations are easy to understand and responsibility and accountability for each function are clearly defined. It is easy to manage in a line organization, because orders can be transmitted quickly and workers are likely to acquiesce to a superior's power and authority. Experts claim that the pure line organization is well suited for tasks requiring large numbers of moderately educated workers to perform routine operations. The efficiency of line organizations derives from the fact that each worker is positioned in a sharply

defined slot in a carefully established division of labor. Therefore, the employee requires little orientation beyond that needed to acquaint him or her with the immediate work group and those few procedures to be used in a narrowly circumscribed job description. The emphasis on clear-cut work specialization and role separation makes line structure most effective in a stable organization in which the pace of change is slow.

Disadvantages of line organization

Traditional line organization has several disadvantages. The overemphasis on specialization causes work splitting to the point that each employee's task is a narrow, repetitive performance, producing monotony and alienation and also causes communication difficulties among specialists. A clinical nurse specialist who has worked for a long time in the psychi-

atric division of a large hospital may know little about the family counseling services provided by a family nurse practitioner in the agency's outpatient department—even when the two nurses care for different members of the same family. In addition, the family nurse practitioner may not know that the psychiatric nurse specialist can provide intervention therapy for an outpatient who is having difficulty coping with overwhelming grief.

A pure line organization is rigid, in that workers tend to resist innovative changes in function. The firm, clear bonds between positions that speed communication and clarify authority cause employees to resist recommendations from outsiders. If a supervisor position is interposed between division manager and head nurse, and the chief responsibility of that supervisor has been to adjust staffing levels and discipline employees, it would be difficult for a consultant to redesign the supervisor position into a clinical nurse specialist position. All members of the nursing department would be likely to resist such a change. Head nurses and staff nurses might be as reluctant as supervisors to have the position description changed, because the supervisor's role behaviors would have been defined as much by other nurses' expectations as by the official job description.

Line organizations engender passivity and dependence in staff members and autocratic behavior in managers. The strong chain of command and concentration of authority at the top of the hierarchy cause lower-level employees to refer difficult problems to their immediate superior. Furthermore, the emphasis on vertical communication predisposes a manager to talk more than to listen, and to view subordinates as unmotivated or incompetent persons who perform satisfactorily only under threat. A manager who uses threat of punishment to obtain worker compliance and is aloof from direct caregiving will alienate subordinates, producing even greater worker passivity.

Line organizations are characterized by weak integration of different divisions or depart-

ments. Because lateral communication is discouraged, the personnel in each division tend to interact with members of the same division and compete with other divisions for agency resources. It is rare for a division director in a line organization to willingly transfer a position from that division to another in order to promote total agency functioning. It is rare for a head nurse in a line organization to seek advice from a more experienced head nurse in a different clinical division to resolve a patient care or employee-management problem.

Perhaps the most serious disadvantage of line organization is the tendency for personnel in these structures to make limited use of available knowledge for decision making. The misuse of available data results from the relative isolation of each employee in a rigidly circumscribed niche. The scant information about unit activities that is transmitted upward by lower-level employees is also often misunderstood by the nonclinical middle managers that abound in a bureaucracy. Unable to comprehend some of the clinical information from the nursing units, a middle manager may unwittingly withhold significant information from the nurse executive. If embarrassed by his or her lack of clinical expertise, a middle manager may deliberately block some information from the executive to avoid the need to discuss unfamiliar content.

Another disadvantage of line organization is the tendency of bureaucracies to grow without restraint. When the workload increases in one part of an agency, administrators often increase the number of positions in that division. A better course of action would be to analyze the total structure, to see whether a concomitant workload decrease in another division would permit position transfer, rather than increase. As a division's work force is enlarged, the number of employees supervised by each manager may eventually exceed the effective span of control. Usually, administrators solve this problem by creating an additional layer of hierarchy, lengthening the chain of command and extending the

cific function to a staff officer, the executive delegates a small part of the executive role to a subordinate who has no responsibility to manage the department's basic operations.

Because the staff officer takes over part of the executive's job responsibilities, an effective staff officer submerges personal motives and interests to champion the executive's agendas. A general staff officer (assistant to the director) is called upon to represent the executive in a variety of situations when the executive cannot be present. Because each staff specialist's efforts are confined to a narrowly circumscribed topic, that staff officer should speak for the executive only with regard to that topic. In order to support the nurse executive, a staff officer must be thoroughly familiar with the executive's long-range goals for the organization and know when to commit organizational resources in the executive's absence.

A staff officer should serve as confidant or sounding board for the executive. When a staff officer is assigned to investigate a crisis situation, solve a problem, or generate a plan, she or he should investigate the matter independently, work out a detailed solution, and present a concise (1–2 pages) solution or proposal to the executive.

Over time, a staff officer is expected to improve organization functioning through analyses and proposals. To effect change, a staff officer must obtain voluntary acceptance of these proposals by line officers or persuade the executive to direct line workers to implement the proposals.

Staff officers serve one of three functions: service, advisory, or control. An assistant director for in-service is a service specialist who serves line divisions by orienting and training staff nurses. An assistant director in charge of staffing (when that function is centralized) serves line officers by scheduling nursing personnel for 24-hour coverage of all nursing units. An assistant director in charge of research advises line officers by assisting clinical nurse specialists to plan research studies for staff nurses

to implement with occasional assistance from the research specialist. As assistant director of quality improvement controls line workers by surveying nursing units to evaluate care quality and suggesting needed practice improvements. In some agencies there is an assistant director in charge of planning who advises line managers in setting goals and planning methods for achieving them. There may be an assistant director in charge of policies and procedures, who advises line workers in writing and publicizing policies and protocols to guide nursing practice.

Sometimes, a line and staff organization grows so large that more than one person is needed to provide in-service education to staff. The assistant director for in-service might supervise a corps of instructors who orient and train new employees. In this case, a staff office for in-service is created. The staff office would develop its own line organization, because a chain of command would be needed to distribute responsibilities among several teachers.

It is the function of the staff organization to serve the line organization, not the reverse. However, experts believe that, as automated (computerized) management systems proliferate, staff units will grow at the expense of line units. Even in nonautomated agencies, when staff offices grow in size, line workers spend more time gathering information to be analyzed by staff experts. Line and staff portions of a mixed organization compete for scarce personnel dollars. Moreover, line and staff personnel vie for the chief executive's attention and admiration; so the potential for conflict exists between the two groups. The nurse executive should develop mechanisms to integrate the efforts of line and staff officers into a cooperative and harmonious whole.

The advantage of a line and staff organization is that key management functions that the chief executive has neither skill nor time to execute well are delegated to functional experts who can devote full time to the assigned function without being distracted by responsibilities

of day-to-day management of personnel and materiel.

Disadvantages of line and staff organization

Staff officers have less power than line officers, because the latter direct the basic operations that support agency mission. Furthermore, staff officers must stand quietly in the background, while line managers receive recognition for improvements that originated as suggestions by a staff specialist. Staff officers may be disadvantaged, because staff positions are located at the periphery of formal structure, which casts incumbents in the role of social isolates. For instance, the assistant director for research in a department where divisional directors oppose staff nurse involvement in research studies is likely to be ostracized by the agency's administrative nurse group.

Because staff personnel may be organizationally disadvantaged, some seek to increase their influence by usurping the authority of line managers. An assistant director in charge of staffing might change the ratio of professional to non-professional employees in the Coronary Care Unit without consulting the division director of Medical Surgical Nursing.

When a nursing department functions smoothly, middle managers are strong enough to resist influence from a staff officer in areas outside that specialist's authority. A strong divisional nursing director (a line manager) would likely resist an in-service director's pressure to appoint one of three staff nurses to a head nurse position. The in-service specialist might be familiar with all three candidates through having oriented them; but the candidates' work performance should be evaluated by their immediate supervisor(s), and the line manager to whom the new head nurse will report should decide which candidate is best suited for leadership.

Not only should staff officers be kept from usurping line managers' command responsibilities, but line managers should be kept from ignoring advice from staff specialists. The nurse

executive may require line managers to consult the appropriate staff specialist before acting on a matter within that staff officer's purview. For example, the director of medical-surgical nursing may be required to consult the assistant director for staff development before spending agency funds to enroll a staff nurse in an intensive care workshop.

Functionalized Line and Staff Organization

A third type of formal organization structure is the functionalized line and staff organization. In this structure, staff officers are no longer purely advisory but have some command authority over line employees. The director of in-service may have the authority to decide how much indoctrination training and what type of orientation each new nurse must receive and when orientation classes will be held. The director of quality improvement may have the authority to assign selected staff nurses to gather data on critical indicators of care quality, regularly submit quality monitoring reports, and remedy identified problems.

As a nursing organization increases in size, it may evolve from a pure line, to a line and staff, and finally, to a functionalized line and staff structure.

The advantage of functionalized line and staff organization is that the expert responsible for a specified management function, such as staffing, policies, quality improvement, or staff development, has authority to command line managers to implement needed actions that relate to the expert's specified function.

Disadvantages of functionalized line and staff organization

In a functionalized line and staff organization the talents of staff specialists are more effectively applied, and the morale of staff personnel is higher than in a line and staff organization. However, when the line organization's chain of command is broken to give staff specialists authority for certain functions, confusion and tangled communications result. In a pure line, line

and staff, or functionalized line and staff organization, the depth of hierarchical structure may be great or small. There is evidence that taller structures are associated with greater security and social need satisfaction for employees and that flatter structures are associated with greater employee self-actualization (Dessler, 1976).

Matrix Structure

General background

Several changes in the health industry have made the line, line and staff, and functionalized line and staff structures less effective than they were at mid-century. Consequently, a new type of formal organization structure, "adhocracy," or matrix structure, has been adopted by more innovative nursing organizations (Bishop, 1983).

Management theorists have pointed out the growing proportion of knowledge workers in American society (Drucker, 1967). The typical knowledge worker is well educated and trained, highly specialized, internally motivated, and self-sufficient. As a result of lengthy educational preparation and wide-ranging interests, a knowledge worker is challenged by novel or unexpected events and enjoys problem-solving tasks. According to this description, most health care professionals are knowledgeable workers.

An underlying problem in many health agencies are the frequent misunderstandings between agency administrators and health professionals. These result to some extent from increasing specialization in all health professions and from growing pressure to contain health care costs. The scientific explosion has made it necessary for members of all health disciplines to specialize. With increasing specialization, practitioners in each clinical nursing specialty moved closer to others in the same specialty and are pulled farther away from nurses in other clinical areas.

Nurses are also developing a professional identity, which causes them to somewhat separate from members of other health disciplines

with which they have worked closely in the past. For example, a chemotherapy nurse may gradually withdraw from the company of medical staff nurses, pediatric staff nurses, or general surgery staff nurses as she or he acquires a different caseload, working knowledge, job tasks, work problems, and educational needs. In fact, a chemotherapy nurse's job duties are so unique that the hospital administrator, nurse executive, general surgeon, surgical nursing division director, even the oncology unit staff nurse may have little understanding of the chemotherapy nurse's clinical role.

Highly refined specialists, such as chemotherapy nurses, ostomy nurses, dialysis specialists, podiatry nurse specialists, and diabetic teaching nurses, do not fit neatly into the bureaucratic chain of command. Often, the expert knowledge of these specialists far surpasses their line supervisor's knowledge of the topic. Therefore, a specialist often cannot be totally oriented, supervised, evaluated, and coached by her or his immediate supervisor in the chain of command. Most nurse specialists seek support and coaching from other specialists, both inside and outside the agency. A specialist's responsibility often requires that he or she move freely throughout the agency to serve patients of a particular type, wherever they are housed and whatever their phase of treatment. Geographical mobility increases the specialist's autonomy and weakens attachment to a single line manager.

Drucker claims that a complex institution needs a complex organizational structure. He defines the ideal organization as one that permits movement on two or three axes (Drucker, 1970). Movement on several axes would permit lengthening or shortening the chain to accommodate internal or external conditions, lateral expansion to encompass additional staff officers, and deepening the primary work group by adding clinical specialists to the base of the hierarchy.

Toffler (1971) says that contemporary institutions need extremely flexible structures. Es-

calating change in the health industry, like that in the larger society, has increased the problems to be solved by health care workers. So complex are operational problems of large service and educational institutions that a few highly trained top executives cannot muster enough knowledge and skill to make operational decisions for the total work force.

Scientific advances require greater knowledge and self-direction by caregivers. After graduation, most nurses specialize in a single clinical area. Nurses' increased job responsibilities have increased their need for rapid access to information from other professionals. Communication through formal channels is subject to delay at each interchange, so staff nurses and clinical specialists learn to bypass bureaucratic hierarchy and consult directly with knowledge workers throughout the agency. This shift from vertical to lateral communication, during the evolution from a line to a matrix structure, has a leveling effect on employees. Status previously associated with one's hierarchical level has become less important than status deriving from professional expertise.

Ad hoc project teams

Many nursing organizations use project teams or task forces to execute special projects. A project team or task force is a group of diverse specialists who are temporarily joined to perform a nonroutine task of complex nature and critical importance to the agency.

Project teams do not replace the institution's formal structure, which may be pure line, line and staff, or functionalized line and staff. Instead, a project team is a supplementary, temporary, and horizontally oriented attachment to existing structure. A project team is created by the nurse executive, who outlines the goal, time limit, and general guidelines for the project, appoints the project director, and authorizes that person to select specialists from several clinical divisions to serve as team members.

Most project teams include employees from several hierarchical levels. Generally, team

members are strangers to one another and possess diverse professional backgrounds. Because the project team or task force is a temporary group that works against tight deadlines, there is little group cohesiveness, but great need for effective communication and interaction among members. Consequently, project team members develop quick, intense relationships for the duration of the project and ignore status differences in order to communicate easily about project issues. The project leader gives orders and provides guidance to team members, but there is no clear structure that binds other members to the group. Each team member works somewhat independently on her or his part of the project and serves as consultant to the project leader and other members as requested.

Frequent use of ad hoc project teams decreases the strength of the formal chain of command and decreases worker loyalty to the primary work group. Highly skilled specialists who are appointed to one project team after another move back and forth frequently between their regular clinical area and special projects, with the result that they cannot develop close friendships with personnel in their regular clinical division or with project team members. The uncontrolled autonomy of project teams and the specialist's assignment to one project leader after another weakens the strong superior-subordinate links that stabilize a line or line and staff structure.

In a health agency where large numbers of specialists move frequently among continually restructured project teams and project leaders report to the nurse executive, the executive must master the jargon of multiple specialists and coordinate the activities of transient work groups. Occasionally, the management of special project teams may overburden the vice-president of nursing to the point that he or she has insufficient time for strategic planning and professional leadership.

Rapid movement of personnel from one role to another throughout an adhocracy upsets the agency's existing power relationships (Fuszard,

1983). Development of a power imbalance enables employees in pivotal positions to seize additional power. Nurses could better control their conditions of practice if, as a group, they wielded more power in the health industry. Nurses could seize some of the free-floating power that abounds in an adhocracy, if they were more inclined toward risk taking than security seeking. Unfortunately, to acquire additional power in a complex health agency, nurses must be willing to invest considerable energy in influencing multiple power brokers, despite the risk of disapproval, frustration, and failure.

Matrix organization

When project teams or task forces are superimposed on a fully functionalized hierarchical organization, a matrix organization results. In a matrix organization the efforts of specialists

are coordinated both vertically and horizontally. Vertical coordination takes place through the hierarchical chain of command. That is, the efforts of several specialized departments or divisions are integrated by the nurse executive, who directs the operations of all. Horizontal coordination occurs by direct interaction among diverse members of the special project teams that represent different divisions and occupational groups (Fig. 7-3). A matrix organization differs from the line and staff or functionalized line and staff structure in having fewer levels of hierarchy, greater decentralization of decision making, and less rigid adherence to formal rules (Rakich et al., 1985).

Because the nurse has more generalized education and spends more time with patients than other members of the care team, a nurse can better coordinate the clinical and nonclin-

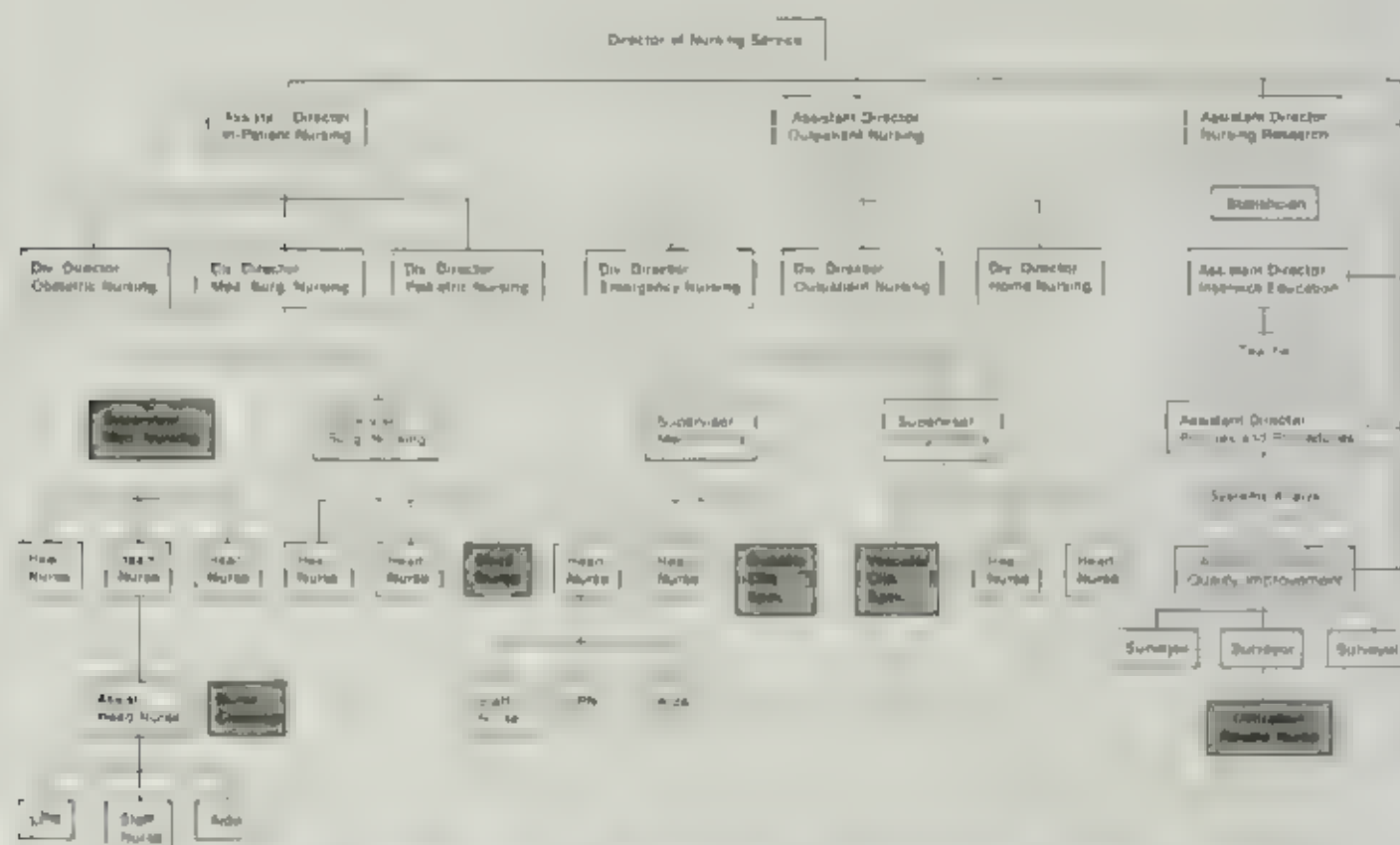


Figure 7-3 Matrix organization. In this example, a preadmission to admission counseling program for diabetic patients consists of: (1) a medical nursing supervisor; (2) a case manager/nurse; (3) the head nurse of the surgical ward; (4) an endocrinology specialist; (5) a cardiovascular clinical specialist; and (6) a utilization review nurse.

ical aspects of care for each patient. In a matrix organization, a primary nurse has no authority to give orders to care team members from other disciplines, such as nutrition, respiratory therapy, or social service. Therefore, a primary nurse must use referent power (modeling behaviors that others wish to emulate) and expert power (greater familiarity with *all* aspects of the patient's situation) to coordinate efforts of diverse professionals who care for the patient.

In a matrix organization, each nurse would be assigned a caseload of, perhaps, five or six patients. The primary nurse would be responsible for the full range of nursing services given these patients throughout their entire episode of illness. While caring for each patient, the nurse would integrate contributions from other caregivers: physician, nutritionist, occupational therapist, physiotherapist, respiratory therapist, ostomy specialist, and pharmacist. The patient would see his primary nurse as the professional having *overall* responsibility for his care—the person to advocate on his behalf against a welter of professional opinions and organizational rules.

The matrix structure stimulates nurses to a high level of motivation. According to Herzberg (1968), professional workers are more motivated by the work itself than by working conditions. In a matrix organization, the primary nurse for a small group of patients feels greater personal satisfaction and professional achievement from recovery and rehabilitation of a patient in her or his caseload than would be possible from single task assignment (e.g., a "medication nurse") or membership on a nursing team in a line and staff structure.

Lateral or horizontal relationships among employees are discouraged by pure line, line and staff, and functionalized line and staff structures. Yet lateral relationships are necessary to integrate complex projects with total agency operations. Research suggests that managers maintain inadequate control over goal achievement when relying wholly on vertical relationships. Research also suggests that lateral relationships

involve managers in more lengthy and difficult communications than do vertical relationships (Hall and Leidecker, 1974). The matrix organization, through emphasis on multiple, short-term, single-goal project groups, increases lateral relations, thereby improving communication and coordination of workers from different specialties.

Another development that encourages matrix structures in nursing is the promotion of nurse executives to higher corporate positions, where they accept the added responsibility of administering dietary, social service, physiotherapy, and pharmacy service (Singleton, 1988). When the vice-president for nursing heads several patient care departments, it is tempting for the nurse executive to construct multidisciplinary project teams to institute agencywide system changes.

Authority, responsibility, accountability, and delegation are distributed differently in different organization structures. *Authority* is the *organizationally sanctioned* right to act or order others to act that is based on the individual's official position in the organization. The permanent, solid lines that connect position titles in pure line or line and staff structure more clearly define the type and amount of a manager's authority than do the dotted lines of functionalized line and staff structure or the moving lines of matrix structure.

Responsibility is the obligation to account for one's conduct in an assigned task. Responsibility is a two-directional phenomenon. Not only does each manager have an obligation to direct selected subordinates but also each staff nurse has an obligation to respond to a particular manager. Again, the solid lines that connect positions in the pure line or line and staff structure clearly indicate the subordinates (by position title) whom each manager has an obligation to direct and the manager (by position title) to whom each staff nurse is obliged to give account. Dotted or dashed lines that connect line managers to staff officers in a functionalized line and staff organization suggest that line man-

agers are obligated to report *certain* work activities and outcomes to a particular staff officer; but the two may disagree about *which* of the manager's activities and outcomes should be reported to the division director and which to the staff officer.

Accountability is the obligation to disclose to appropriate others the purposes, principles, procedures, relationships, expenditures, and results of enterprises over which one has authority (Lewis and Batey, 1982). A head nurse demonstrates accountability by submitting monthly and annual reports of performance data for the nursing unit. Such data include the number of employees on payroll; hours of sick, absent, and overtime for each employee; paid hours for agency staff and registry staff; patient admissions and discharges; average patient length of stay; daily average of patients in each care classification; quality-monitoring data; and progress reports for various unit programs.

Through *delegation*, a manager modifies the relationships between his or her authority, responsibility, and accountability. Delegation is the process of authorizing a subordinate or peer to perform some portion of one's official job duties. Although the manager can delegate some of the authority conveyed through position description, the manager's responsibility and accountability for tasks mentioned in the position description cannot be delegated (Clark, 1979). Thus, through delegation, a manager temporarily diminishes authority within a circumscribed area, while retaining the same amount of responsibility and accountability. Delegation is one method by which an overburdened manager can conserve time and energy for implementing creative service and educational projects. Unfortunately, some managers are reluctant to delegate duties because of their overwhelming need for control, fear of revealing managerial shortcomings, or lack of trust in subordinates' abilities (Terry and Franklin, 1982).

A matrix organization whose mission includes nursing education, nursing research, and

nursing service stimulates nurse employees to function as multifunction professionals and facilitates the integration of service and education programs (Baker, 1981). Unification of nursing practice, education, and research in the same institution requires that top administrators have sound educational preparation in all three functions (Nayer, 1980).

In a matrix organization the continuous formation and dissolution of project teams confuses some workers about the extent of their responsibility for specific tasks. To reduce confusion and prevent the neglect of important tasks, the executive should institute responsibility charting for multifaceted group undertakings (Gilmore and Peter, 1987). To chart individual responsibilities for implementing a computerized nursing information system, the project leader should list all decisions and actions needed to computerize all nursing records, identify stakeholders concerned with each decision or action, and set the date by which each decision or action must be completed. Finally, a matrix chart should be constructed to force stakeholders to consider the following questions:

1. If there are several stakeholders, who is best suited to lead the decision or action?
2. Must all stakeholders approve this decision or action?
3. Will requiring multiple approvals unnecessarily delay action?
4. What should be the pattern of consultation among multiple stakeholders?
5. Does the participation required from each stakeholder fit the interests and skills of involved individuals?

Shared Governance

During the 1980s a special type of decentralized management system, called shared governance, has been implemented in a few nursing organizations (Caramanica and Rosenbecker, 1991; Jenkins, 1988; Jones and Ortiz, 1989; McDonagh et al., 1989; Pinkerton, 1989; and

Porter-O'Grady, 1991). Three operating models of shared governance have been used. In the councilor model, councils of elected clinical nurses are given authority for defined functions, such as practice standards, quality monitoring, and staff education. In the congressional model, a president and cabinet of advisors are elected from the professional nursing staff to carry out selected operating and control functions, such as staffing and peer evaluation. In the administrative model, departmental authority is divided and allocated among nurses elected representationally from the department's administrative and clinical tracks (Porter-O'Grady, 1987). The goal of the shared governance system is to increase nurses' autonomy and recognition, so as to improve nursing practice standards, enhance patient care quality, advance the professional education of nurses, and promote scientific enquiry (Jones and Ortiz, 1989). Under shared governance, nursing practice is controlled through professional collaboration, rather than through hierarchical direction and discipline.

Structural details of the shared governance models differ from one agency to another. However, most shared governance organizations represent their formal structure as a set of interlacing circles to represent the interacting councils, congressional bodies, or cabinet offices that govern nursing practice. In many structures, the core or central body is a nursing executive, or central coordinating group, consisting of the vice-president of nursing, divisional nursing directors, and elected chairpersons of the remaining councils or bodies. The three or four councils or bodies that surround the core group consist of nurses who are elected by the professional nurse group. Each council has authority for a major nursing concern, such as professional practice issues, quality-improvement needs, nursing research activities, and staff-development efforts.

Nurse executives have reported that shared governance increases staff nurse input to policymaking (Eckes et al., 1989), enhances nurses'

autonomy (Glendon and Ulrich, 1992; Jones and Ortiz, 1989), and decreases nurses' absent time (Jenkins, 1988). Some also report that the implementation of shared governance is associated with increased time spent in making management decisions (McDonagh et al., 1989) and staff anxiety related to "responsibility overload" (Caramanica and Rosenbecker, 1991).

COMMITTEES

After the table of organization has been completed and the organizational structure chosen, committees are appended to the formal structure. A committee is a group of employees engaged in some aspect of management function. A committee may have coordinating, informational, or advisory responsibility. A few committees have decision-making responsibility. Much organizational effort flows across departmental lines. A committee facilitates the coordination of activities throughout an agency, providing members from different departments a forum to solve interdepartmental problems. When information must be obtained from or disseminated to workers who are scattered throughout an agency, a committee that represents the involved interest groups is an efficient means for transmitting the information.

When executing a complex project, the top executive will need continuing advice from subject specialists who implement or profit from the project. One way to balance the diverse interests of dissimilar experts while ensuring readily available advice is to assemble an advisory committee of appropriate specialists with whom the executive can meet regularly for the duration of the project.

A committee with decision-making responsibilities is the administrative council, which is composed of the vice-president or director of nursing and assistant directors for the various clinical divisions and staff offices. In all but the most autocratic nursing organizations, this group establishes goals, sets policies, and designs strategy to guide departmental operations. In a highly centralized organization, decisions

made by the nurse administrative council have great influence on job activities and satisfaction of each nursing employee.

Through committee appointments, a democratic vice-president of nursing can involve many nurse managers and staff nurses in management decisions. Committee appointments facilitate participation by small, but important special interest groups (male nurses, foreign nurses) in major decision making. Appointment to chair a powerful nursing committee gives a mid-level nurse manager the opportunity to acquire knowledge about administration, develop leadership skill, and meet influential managers from other departments. Knowledge, skill, and confidence gained during chairmanship increases a nurse's chances for promotion to a position of greater responsibility.

Generally, the nursing department has several standing committees. The more common are the Administrative Council, Nursing Policies and Procedures Committee, Staff Development Committee, Employee Health and Welfare Committee, and Nursing Standards Committee for each clinical nursing division.

The principles of group dynamics should guide the vice-president of nursing and division directors in determining the size of nursing's standing committees. In a group larger than 10, some members take little part in discussion, and it is difficult for the group to reach consensus after debating an issue. On the other hand, a group smaller than four may not represent all groups to be affected by the committee's decisions. Also, in a small group, individuals are reluctant to disagree on a controversial issue. A three-person committee is rarely effective, because of the tendency for two to unite in opposition to the third on every issue. For most committees, a group of six to nine is ideal.

There are disadvantages in assigning some management responsibilities to a committee. For instance, it is possible for one member to use committee discussion as a means of self-aggrandizement, thereby obstructing group progress and wasting the time of other mem-

bers. In some committees, much time is lost because of excessive bickering or bargaining. Even when bargaining results in a decision, the outcome of discussion may be disappointing, because a compromise decision is often unsatisfactory for everyone.

Another disadvantage of committees is the fact that it is more difficult to place responsibility on a group than an individual. Therefore, a committee that wastes time, generates poor results, or fails to complete projects on time is less likely to be criticized than a manager with similar shortcomings. The difficulty of fixing responsibility on a group is accompanied by the difficulty of correcting unsatisfactory group performance. Consequently, an ineffective committee may continue to operate for some time, obstructing progress for the total department or agency. A results-oriented executive would dissolve an ineffectual committee or reconstitute it.

A chairperson can increase committee effectiveness through several methods. First, the chairperson should send each member a statement of committee purpose, the names and terms of all members, and the description of committee members' responsibilities. Second, the chairperson should send meeting agenda and review materials a day or two before each scheduled meeting, so members can be prepared to participate in group discussion (Beachy and Biester, 1986). Third, the chairperson should invite members to prioritize agenda items at the beginning of each meeting and lead discussion, so that all members are stimulated to contribute opinions and suggestions. Fourth, the chairperson should appoint a secretary or should record committee proceedings and decisions and distribute minutes of each meeting to all members and to the vice-president of nursing.

An effective committee proceeds through three stages in solving a problem. First, members gather a pool of facts about the target problem or issue. Next, they evaluate the information, draw inferences from data, and arrive at a consensus about the *general* nature of the

problem and the type of solution needed. Finally, they devise the specific details of a solution they deem workable. A chairperson can increase committee effectiveness by preventing members from settling on a problem solution before all significant information has been examined, all possible solutions have been generated and analyzed for positive and negative effects, and the best of several possible solutions has been identified.

ORGANIZATIONAL RETRENCHMENT

The current drive for cost containment, together with shrinking hospital length of stay, have necessitated size reductions for some nursing departments. The amount of downsizing or retrenchment is determined by the amount of decrease in service demand. To resize a hospital, some experts suggest that planners take the hospital's current average daily census (if occupancy rates have dropped to 55 or 60 percent) and use that figure as estimate of 85 to 90 percent of the capacity of the resized hospital. For example, a 500-bed hospital with a 60 percent occupancy rate has an average daily census of 300. Therefore, plans should be made for a 350-bed hospital, and nursing staff should be budgeted to care for a daily average census of 300 patients (0.85×350), with provision for additional temporary staffing to meet patient care needs when census or acuity rises above expected levels (Bruce and Patterson, 1987).

In agencies where the nursing department has had to retrench, nurse executives report that census projections are used to decide which positions to eliminate, and employee seniority and performance are criteria for determining which personnel to discharge. Rumors abound in nursing organizations before, during, and after retrenchment; so nurse executives should conduct agencywide meetings to explain the reasons and methods for downsizing staff. Despite meetings with personnel and carefully timed information release to newspapers and radio, remaining employees show lowered morale, decreased attendance, and impaired performance during the

layoff period. Nurse executives who direct retrenchment efforts advise that all nurse executives should plan *in advance* for possible downsizing and should accumulate patient census and acuity data for forecasting the numbers and types of employees needed to care for fewer patients or patients with different care needs.

The nurse executive should appoint a highly visible steering committee to design the plan for departmental downsizing (Mullaney, 1989). This steering committee should set policies to guide managers in deciding which positions and personnel can be relinquished while continuing to fulfill agency mission under changed conditions (lower census, decreased length of stay, increased acuity). When the reduction-in-force plan and supporting policies have been completed, the plan should be reviewed by the agency's legal counsel and board of directors before it is implemented. Executives who have experienced departmental downsizing advise administrators to be scrupulously honest and fair with employees and treat subordinates with dignity throughout the retrenchment period, although tempers flare and employees express hostility. Moreover, when making task reassignments following the exodus of discharged employees, managers should not force the remaining personnel to take on new responsibilities. Whenever possible, managers should allow employees to *select* new assignments and encourage them to negotiate for the training needed to become comfortable in the new role (Feldman and Daly-Gawenda, 1985). Because removing positions alters the formal organization structure and removing individuals alters the informal structure, an effective manager will stimulate social networking, committee reassignments, and creative use of the grapevine to foster new communication links among remaining staff members.

SUMMARY

Nurse executives, administrators, managers, and caregivers are all enmeshed in two networks: a formal organization structure and an informal organization structure. Formal struc-

RESEARCH BRIEF

Methods of Nursing Care Delivery

Purpose: Determine the efficiency (time spent in direct care activities) of team nursing, primary nursing, and total patient care organization.

Sample: RNs, LPNs, and nurse aides on all three shifts on eight units of a medium-size community hospital

Method: The investigator observed nurses at work for 40 hours to identify the full range of nursing activities and clustered observations into 10 categories: medications, treatments, physical care, verbal, writing, observation, maintain environment, travel, personal, other. A single investigator observed nursing personnel on each unit every hour over a 24-hour period. The time spent by a nurse in each activity was measured by stopwatch and recorded in the appropriate category.

Findings: Nurses spent most time (19 percent of total mean time) giving physical care; giving medications (14 percent), and verbal activities

(10 percent). The average length of time in giving physical care to a single patient was nine minutes, in giving medication to a single patient was seven minutes. There was no difference between team, primary, and total patient care organization in time distribution among activity categories—with two exceptions. Less time was spent in "maintaining environment" and "other" in Team than in Primary Nursing.

Application: Nurse executives may implement team nursing in hopes of more efficient personnel use. This study showed few differences in efficiency (time use) among three nursing care delivery methods. However, nursing effectiveness (outcome quality) is as important as efficiency to hospital success. When contrasting effects of alternative care delivery methods, managers should analyze differences in patient recovery rate and patient satisfaction with care, as well as differences in time expenditure.

Source: Clark M. and Zernow R. Nursing organization: a census. A comparative study. *Western Journal of Nursing Research* 11 (6) 757-764, 1988

ture defines responsibility, authority, and relationships among employees. Informal structure provides affectional, social, and information support to workers in compensation for the inadequacies of formal structure. To derive maximum support and cooperation from coworkers and minimize role confusion and conflict, a manager must be able to diagram and interpret command, communication, and consulting relationships between workers. To facilitate group enterprise, a manager must learn to assemble workable committees and project teams and lead these groups toward the achievement of assigned and selected goals.

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Job Analysis and Evaluation

Remuneration! O! that's the Latin word for three farthings.

WILLIAM SHAKESPEARE

OBJECTIVES

After reading this chapter, you should be able to:

1. Read the job descriptions for all nursing positions in your agency, and identify a benchmark job against which to evaluate other nursing positions.
 2. Identify the component tasks included in your job description, and estimate the proportion of time devoted to each.
 3. Identify four compensable factors that are present in all jobs in your agency's nursing hierarchy.
 4. Rewrite your own job description to clarify component tasks and the amount of each compensable factor
 5. Rank the nursing jobs in your agency according to your perception of their complexity and difficulty.
-

Nurse managers or administrators should design a job structure for the agency that facilitates career mobility for nursing personnel and a wage and salary structure that ensures fair compensation for work.

Job evaluation includes job analysis and job description and is necessary to create sound career ladders and wage-salary systems (Figs. 8-1 and 8-2). To design an appropriate nursing career ladder, the vice-president for nursing and



Figure 8-1 Job evaluation is built on prior job description and job analysis.

nurse administrators should analyze nursing positions by using the methods developed by job analysts. To ensure a fair salary structure for nursing, managers should evaluate and “cost out” each position by using the methods developed by personnel experts.

WAGE AND SALARY STRUCTURE

Ideally, a health agency's wage and salary structure should be designed so that each employee's pay reflects the value of her or his work to the total group enterprise. It is important to establish a fair salary structure for nursing positions, because studies show that nurses are generally less satisfied with pay than with other job aspects (Roedel and Nystrom, 1988). When nurses' salary scales are restructured, so that compensation is commensurate with preparation and responsibility, nurse turnover and vacancy rates can often be maintained at manageable levels (McDonagh and Sorensen, 1988). Jobs of similar value should be grouped together and given comparable compensation. Unfortunately, health workers' salaries are rarely part of an agencywide salary structure. Salaries for workers in a particular job category are often

decided through negotiations between the employees' union and the agency's governing board. The outcome of labor contract negotiations depends on strength and skill of negotiators. Therefore, an agency's wage structure tends to be skewed, with certain employee categories receiving disproportionately high wages and others disproportionately low wages.

All employees are concerned about wage-productivity relationships. Employees expect to be paid a wage commensurate with the amount and quality of work they perform and to receive premium pay for work that is extremely difficult, dangerous, degrading, or boring. Experts claim that employees are less concerned with their actual salary level than with the relative position of their salary in the total wage scale (Belcher, 1955). When an individual's salary level does not meet her or his expectations for the job, anxiety and alienation result.

Studies show that employees whose pay falls within plus or minus 3 percent of perceived equity are satisfied with their earnings. Employees whose pay falls within plus or minus 5 percent of perceived equity feel vaguely uneasy about compensation, and those whose pay falls within plus or minus 10 percent of perceived equity feel very uneasy about remuneration. Workers whose pay exceeds perceived equity feel guilty. When a worker's pay falls above or below perceived equity by 10 percent, the situation is potentially explosive. The employee is likely to leave the job or initiate action to remedy pay inequity (Livy, 1975).

Relationship between Pay and Job Satisfaction

The exact relationship between pay level and job satisfaction is unclear. Herzberg's two-factor theory of motivation views salary as a job “dissatisfier” rather than a “satisfier.” That is, Herzberg claims that adequate salary can prevent dissatisfaction but cannot provide satisfaction and that inadequate salary causes job dissatisfaction (Herzberg et al., 1964). Kurt Lewin's “field theory” of motivation holds that a

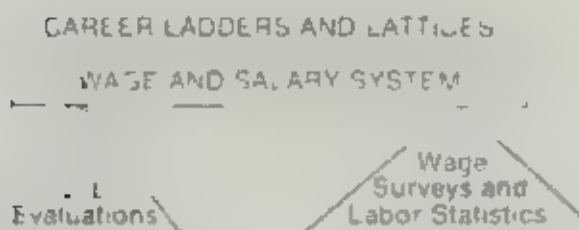


Figure 8-2 Job evaluations, wage surveys, and analysis of labor statistics are prerequisites for construction of career ladders and wage and salary scales.

person's total life environment is similar to a physical force field, where need-path-goal linkages are bound by interconnecting forces. Lewin claims that money serves both as work goal and pathway to higher-level nonwork satisfactions (Livy, 1975). Vroom (1964) claims that salary level has different significance for each employee in a specific pay grade, because money is valued for its usefulness in obtaining other goals.

Jaques (1961) theorizes that each employee has unconscious awareness of the level of work he or she is capable of performing, the quality of work he or she is producing, and what would constitute equitable payment for work of that quality. Jaques claims that an employee is motivated to perform at a level consistent with her or his capabilities and that job satisfaction is determined by interrelationships among employee capacity, work performance, and pay level. According to Jaques, when capacities (C), productivity (W), and pay level (P) are perfectly balanced (CW/P), the employee enjoys maximum psychological equilibrium. When payment level exceeds capacity and work performance (P/CW), the employee feels guilty and behaves defensively with supervisors and coworkers. When capacity and work performance exceed pay level (CW/P), the employee becomes alienated from assigned tasks and agency goals. When pay level exceeds work performance and work demand exceeds capacity ($P/W/C$), the employee experiences severe psychological stress, such as that seen in highly paid executives whose experiential, educational, or personal qualifications are inadequate for their weighty responsibilities. Occasionally, workload volume exceeds an employee's capacity, and both workload and capacity exceed pay level ($W/C/P$). Usually, this situation results from scarce employment opportunities or a neurotic need for punishment on the employee's part. In this situation, the employee's job performance is usually unsatisfactory. When an employee with high capacity is hired at an exorbitant salary and placed in an undemanding job until a more suitable position becomes available ($P/C/W$),

the individual becomes restless and anxious, with the result that he or she may usurp responsibilities of other workers, creating group disorganization and confusion.

Inequity in work-pay relationships causes staffing problems of different types. When nurses' wages are too low, nurse turnover rates are high. It requires one to two months to orient a new nurse for full functioning in a general nursing unit and three to six months to orient a new nurse to an intensive care unit. It has been estimated that the financial cost of replacing a departed staff nurse with a fully functioning worker is \$2,437.00 (Beyers et al., 1983). Therefore, high nurse turnover rates can greatly inflate nursing personnel costs. On the other hand, when wages are disproportionately high, nurse turnover rates may be too low, with the result that agency personnel become stagnant and inflexible (Fig. 8-3).

CAREER LADDERS AND LATTICES

Promotion of internal staff members benefits a health agency by ensuring selective socialization of the work force. Promotion from within maximizes the probability that managers will have the personality, values, skills, and knowledge that fit the agency's character. Promotion of high performers increases motivation of employees in lower-level positions, who see that hard work and high productivity enhance opportunities for job advancement.

To increase the possibilities of promotion from within, each health agency should design individual jobs and the hierarchical job structure to provide long, well-integrated career ladders in each job family. Generally, career ladders in the crafts and professions tend to be narrow, in contrast with career ladders in management, which are somewhat broad. With careful planning, nursing positions can be designed and linked to create opportunities for lateral and oblique branching of the career path, thereby opening alternative promotion routes for nurses at lower hierarchical levels. Some agencies provide parallel clinical and manage-

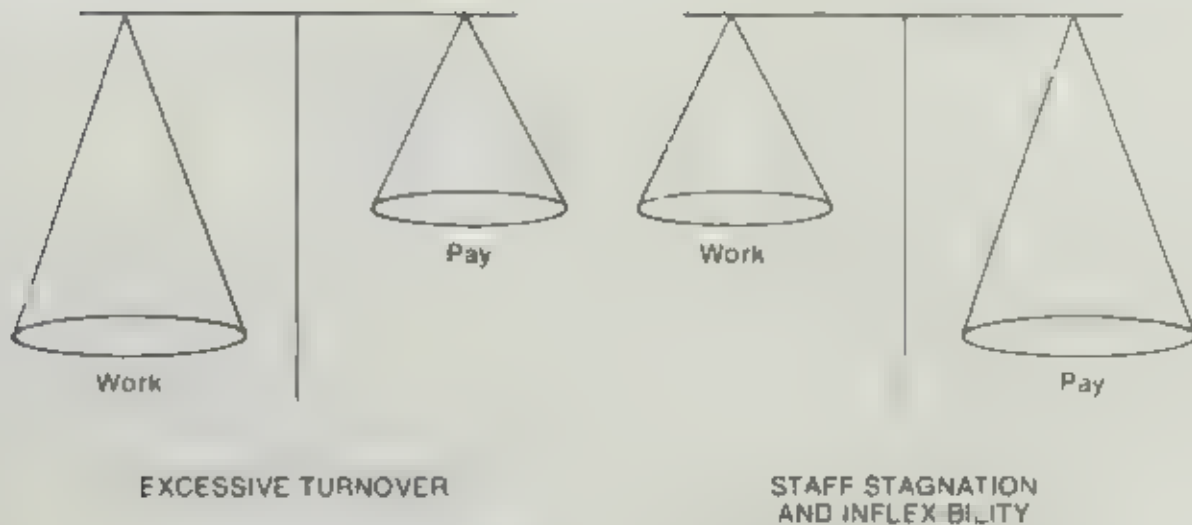


Figure 8-3 Effects of work-salary imbalance.

ment ladders to allow enterprising staff nurses to advance into more responsible positions, whether they remain at the bedside or lean toward a managerial role (Balasco and Black, 1988). Unless career ladders and lattices are built into departmental structure, the agency will suffer, because more ambitious nurses will be lured to other agencies in search of promotional opportunities (Fig. 8-4).

JOB-EVALUATION PROCESS

Job evaluation is a prerequisite for fair salary structure and effective career ladders. Job eval-

uation is a systematic appraisal of the work of a particular job in relation to all other jobs in the agency. The purpose of job evaluation is to determine the relative worth of each job as basis for equitable pay differentials. It is also a process by which a line manager or personnel specialist analyzes jobs to determine what work factors the agency is paying for in employee wages. The objective of job evaluation is to identify job factors that place one job higher than another in a value hierarchy and to measure the number and amount of these factors in each job. Four methods of job evaluation are used to determine

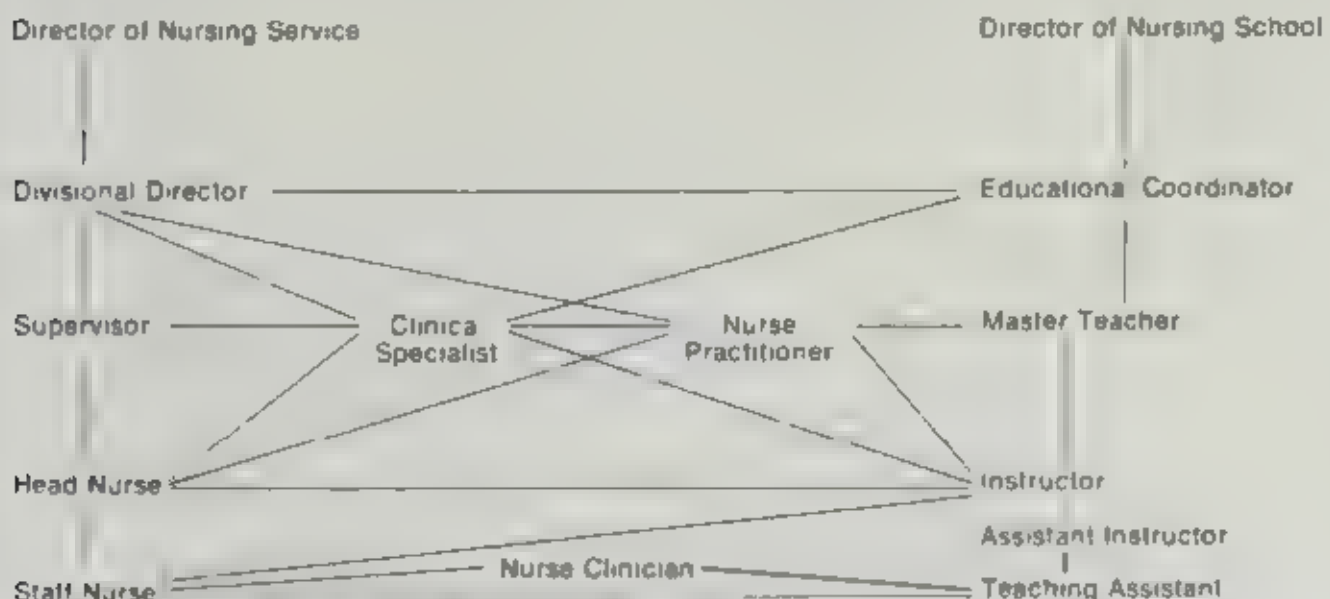


Figure 8-4 Possible career ladders and lattices in nursing service and nursing education

a value hierarchy. Two nonquantitative methods are job ranking and job classification; two quantitative methods are factor comparison and point system. All are described in this chapter.

Jobs are evaluated on the basis of information provided in the job description. The job description should be written only following job analysis.

Definitions

To use the job-evaluation process effectively, a nurse manager should be familiar with the following definitions. A *policy* is a long-range statement of organizational objectives. A hospital or clinic may have a policy that all jobs in the organization will be evaluated no less frequently than every five years. A *procedure* is a short-range statement of technique used to realize an organizational objective. A hospital or clinic may develop a procedure to evaluate jobs through job-classification technique. *Wages* are financial compensation for services of hourly rated, nonsupervisory employees. *Salaries* are compensation for workers other than those who are hourly rated. A *task* is an employment obligation that requires the expenditure of human effort for a particular purpose. A *position* is an aggregation of duties, tasks, and responsibilities that require the services of one individual. A *job* is a work assignment that includes a set of tasks, responsibilities, and conditions that are different from those of any other work assignment. A *benchmark job* is one that is representative of a wide range of jobs, is well understood by line managers and personnel experts, and can serve as a standard against which to measure the value of other jobs. A *job grade* or *job classification* is a specific grouping of jobs, all of which have the same level of difficulty, demand, or responsibility and deserve the same financial compensation.

Job analysis is the process of determining significant information about the duties, responsibilities, and conditions of a specific job. A *job description* is a written account of the organi-

zational relationships, responsibilities, specific duties, and working conditions of a particular job. *Job specifications* are the personal requirements and capacities considered necessary for effective performance of a particular job. Job specifications describe the extent to which compensable factors, such as education, experience, effort, ingenuity, physical demand, and mental demand exist in a particular job (Fig. 8-5). It is a popular convention to use the term *job description* when referring to an hourly rated job and the term *position description* when referring to a salaried job.

Job-Evaluation Committee

To perform across-the-board evaluations of nursing jobs or positions, the vice-president of nursing and nurse managers should analyze the organizational chart and develop an inventory of all nursing jobs. The vice-president of nursing should appoint a Job-Evaluation Committee of six or seven members, which includes some employees whose jobs are to be evaluated, a nurse manager, a personnel specialist, and a job analyst. This committee should analyze a sample

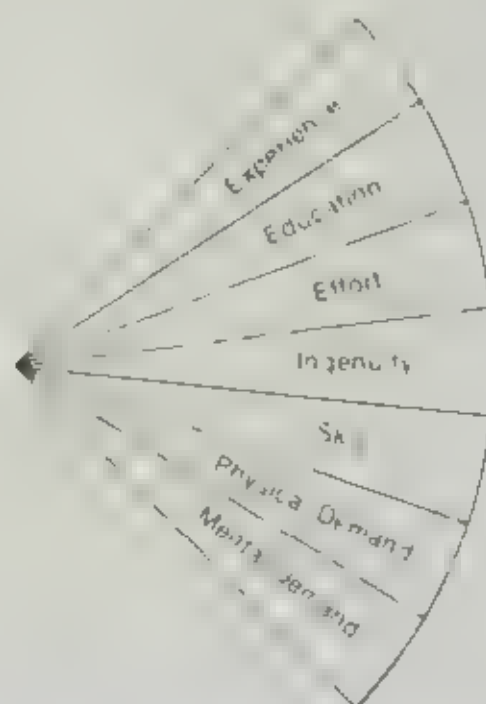


Figure 8-5 Specifications for a particular job

of jobs in the nursing department, write a job description for each analyzed job, define compensable factors included in the entire gamut of nursing jobs, weigh the amount of each compensable factor in each job, and price each job relative to every other nursing job and to the fair market value of the same job in the total health industry.

Job Analysis

Job analysis is the first step in job evaluation and requires investigating each job from two standpoints: (1) duties and responsibilities associated with the job; and (2) skills and personal attributes required to perform the job. Through job analysis the line manager or personnel specialist determines the activities of a typical worker in the job, the manner in which each activity is performed, the purpose for each action, and the skill required to accomplish it (Fig. 8-6).

In analyzing a job, the following job aspects are studied: procedures executed; equipment used; subject matter dealt with; problems handled; job scope and responsibility; amount of autonomous decision making; performance standards; workload volume; nature of supervisory and reporting relationships; training required; working conditions or hazards; and promotional opportunities.

When analyzing a job, the manager should first isolate the job's component tasks. The man-

ager might identify the following as component tasks in the surgical technician job:

1. Checks and provisions operating room supply cupboards.
2. Selects and sterilizes surgical instruments for assigned case.
3. Sets up and maintains sterile area for handling sterile supplies and equipment during the surgical procedure.
4. Performs preoperative and postoperative sponge and instrument counts with the circulating nurse.
5. Hands needed sterile instruments, sutures, supplies, sponges, and solutions to the surgeon during the operative procedure.
6. Wraps and labels tissue specimens and foreign bodies removed during surgery and delivers specimens to the pathology department.
7. Breaks down sterile setup following operative procedure and disposes of specimen, trash, and contaminated linen and instruments in appropriate fashion.

After identifying a job's component tasks, the manager should determine how each task is performed; that is, which skills are employed, what information is used or generated, and whether the employee works individually or as a team member. Next, the manager should investigate why each task is performed in the observed manner. What agency objective or policy re-

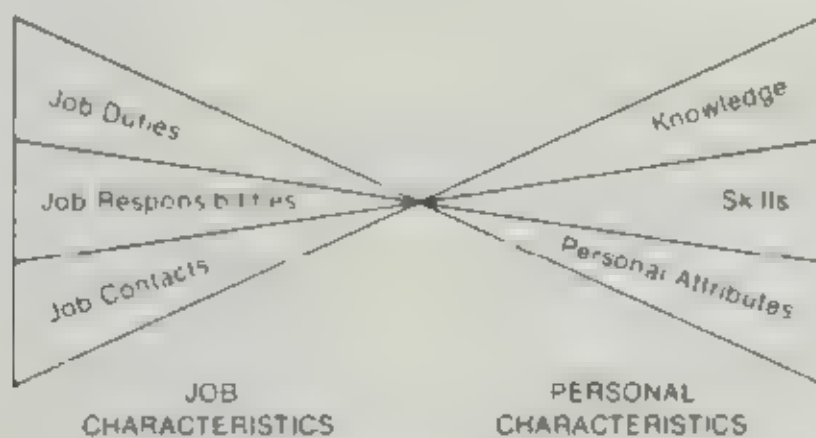


Figure 8-6 Bipartite approach to job analysis.

quires the employee to behave in the observed fashion? The manager should determine when each task is performed; how often, how long, and at what hour. The manager should determine the level of difficulty of each component task and the task's importance to total job performance, to differentiate primary from secondary job duties. The manager should identify the job holder's responsibilities for unit work flow, coworkers' activities, service costs, facility maintenance, and equipment functioning. Finally, the manager should explore the job's typical working conditions with reference to dirt, noise, temperature, space, social conditions, and such personal demands as physical effort, mental strain, emotional stress, and social pressure.

Collecting Job Information

McCormick (1979) suggests the following job information be considered when evaluating a job for wage or salary determination: job-oriented work activities; employee-oriented work activities; machines, tools, and work aids used; knowledge used; working conditions; and personal requirements. For example, in evaluating the position of rehabilitation staff nurse, the following job information might be considered:

1. *Job-oriented work activities:* Lifting patients and equipment; adjusting and operating equipment; transcribing and fulfilling medical orders; constructing care plans; helping patients with activities of daily living; evaluating patient response to therapies; transmitting information to and from other caregivers; directing work of nonprofessional personnel; preparing family caregivers to assist patients following discharge; assisting patients to acquire activity-of-daily-living skills.
2. *Employee-oriented work behavior:* Assessing; deciding; communicating; teaching; demonstrating; coordinating; problem solving; negotiating; contracting, reinforcing, referring; evaluating
3. *Machines, tools, and aids used:* Splints; binders; bandages; wheelchairs; stretcher carts; patient litters; suction machines; oxygen-delivery equipment; intravenous fluid pumps and controllers; casts; prosthetic legs and arms; canes; crutches; walkers
4. *Knowledge used:* Normal anatomy and physiology; neuromuscular-skeletal pathophysiology; normal and abnormal immune response; inflammatory response and wound healing; pharmacology; role theory; group dynamics; sociology of the health professions.
5. *Working conditions:* Irritable, anxious, depressed, dependent, and noncompliant patients; anxious, angry, and frustrated family members; multidisciplinary care teams; noisy, overcrowded units and therapy rooms.
6. *Personal requirements:* Muscular strength; eye-hand coordination; patience; optimism; high-level speech and writing skills; ability to work cooperatively with people of different ages, educational, social, and cultural backgrounds; ability to remain calm in high-stress situations.

Information about a nursing job can be collected through several methods: questionnaire, self-report diary, interview, observation, work sampling, or some combination of the foregoing.

The questionnaire method is the least time-consuming for obtaining job information. To identify duties, tasks, and responsibilities (DTRs) of a particular job, the analyst or manager should ask incumbents to list the tasks they perform. These lists should be compared and consolidated, and reported job tasks classified by type (Nauright, 1987). For example, the reported job tasks for a medical nursing staff nurse might be classified into four types: supervisory, direct patient care, maintenance of supplies and equipment, and interper-

sonal communication (Ignatavicius and Griffith, 1982).

The chief disadvantage of the questionnaire is the fact that an employee may deliberately give erroneous information out of fear of personal consequences of job evaluation. An employee may also provide inadequate information if he or she fills out the questionnaire hurriedly because of work or time pressures. The questionnaire method is used when it is desirable to obtain job activity information from a large number of respondents outside the agency, as when determining job and wage comparability among several agencies. For example, a questionnaire survey was used to inventory the task responsibilities of newly licensed nurses (Yocom, 1987). Results indicated that, for nurses in all clinical specialties, the tasks performed most frequently were those associated with routine nursing care, monitoring patients at risk, and protecting patients from injury.

The self-report diary has some of the disadvantages of the questionnaire method. However, it provides more extensive job information than a questionnaire and minimizes problems resulting from employees' tendency to report only activities that the analyst solicits information about.

An interview is more effective than a questionnaire for obtaining significant job information, because an interviewer can explain the purpose of the evaluation and interpret questions so as to minimize respondent's anxiety and maximize information gathering. The most valuable job information is obtained when a standard questionnaire is used to interview each respondent, because all workers surveyed will be asked pertinent questions in the same sequence.

The most effective method to obtain job information is observing an employee as he or she performs the tasks included in a specified job. Of course, direct observation is the most time-consuming method of job analysis. Moreover, the presence of an observer or analyst alters an

employee's job performance in subtle ways. A staff nurse may spend less time than usual in taking a patient's health history when observed by a job analyst, because the analyst's presence diminishes the confidential nature of the situation.

Finally, job data can be obtained through work sampling techniques. Work sampling requires an analyst to make regular, short, spaced observations of an employee at work over a specified time period, record the employee's activity during each observation, and calculate the proportion of the employee's total work time spent in each task (Haggerty et al., 1985).

Compensable Factors

When information has been obtained about job tasks, recorded job data must be sifted to differentiate between significant and trivial activities. Significant activities should be scrutinized to weight the compensable factors present. Theoretically, administrators in each agency should decide which compensable factors the agency is willing to pay for. However, most agencies identify a similar list of elements or factors for evaluating jobs. To be a compensable factor, a job element should appear in a wide range of jobs but be present in different amounts in different jobs (Belcher, 1955). Those elements identified as compensable factors should be broad and flexible enough to apply to different types of work and work situations. To differentiate jobs on the basis of compensable factors, the number of compensable factors must be low enough (five or six) to prevent factor overlapping (Patton et al., 1963). Experts claim that the following compensable facts are useful in analyzing and evaluating a wide range of jobs: (1) mental requirements; (2) physical requirements; (3) skill requirements; (4) responsibility; and (5) working conditions (Fig. 8-7). On the other hand, Jaques (1961) recommends differentiating jobs according to the amount of prescribed and discretionary activity called for, rather than type and amount of skill required.

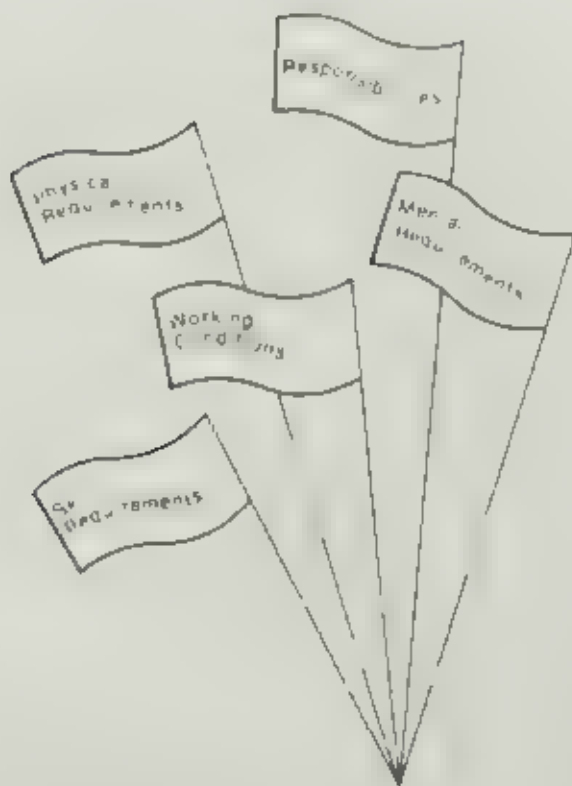


Figure 8-7 Compensable factors to be considered in job analysis.

Job Description

After job content and working conditions have been weighed, a formal job description should be prepared. The job description is a written record of principal duties and scope of responsibility for a particular job, together with required employee characteristics.

There are multiple uses for a job description, among which are to record data for job evaluation; facilitate wage and salary administration; provide a basis for manpower planning; and assist with recruitment, selection, placement, orientation, and evaluation of employees. The nurse manager's chief use for the job description is for employee recruitment and placement (McConnell, 1988). To serve this purpose, a job description must include a clear description of the type of work involved, the scope of responsibility, the employee qualifications needed to perform the tasks, and the conditions of employment.

Beyond this basic purpose, nurse administrators or managers can use job descriptions to determine the appropriate level of employee compensation, identify content to include in employee orientation, outline behaviors to be measured in performance evaluation, and indicate direction for organization development (identify points where jobs interact, complement, supplement, or block other jobs).

Increasingly, job descriptions are used for legal documentation. Angry employees use job descriptions to substantiate claims of sex-, age-, or race-based discrimination in situations where men or women, white or nonwhite, old or young employees are assigned to different job duties. During a union organizing campaign, union and management representatives also refer to job description language to determine which worker categories are eligible for inclusion in a proposed bargaining unit (McConnell, 1988).

Many personnel experts advise using a sociotechnical approach in constructing a job description (Cunningham and Eberle, 1990). In that approach, attention is given to both the job's technical requirements (i.e., the need to coordinate tools, techniques, and workers) and the job's social requirements (i.e., the need to accommodate the worker's feelings, needs, and expectations for the work environment). According to the sociotechnical concept, a job description should indicate not only what actions the worker should perform, how frequently, and what methods and tools should be used but also with whom the work is to be performed and what types of relationships should exist between worker, supervisor(s), and coworkers.

To compare one job with another, job descriptions should be written according to a standardized format. Each job description should include the following information: job title, job code (an alphabetical-numerical designation); a summary statement of job purpose; reporting relationships; function; span of responsibility; principal and subsidiary tasks; resources; meth-

ods; context; performance standards; and employee requirements (Ghorpade, 1988; Lalliberty and Christopher, 1984).

To eliminate confusion among workers and managers, each job should be referred to by a single title. The lowest position in the nursing hierarchy should not be referred to in one document as "nurse aide," in another as "nursing assistant," and in another as "nursing attendant." The ideal title is brief, indicates the role to be played by an incumbent, describes the job's range of responsibility, and suggests the job's skill level and hierarchical placement. Operating Room Afternoon Tour Supervisor, Oncologic Nursing Clinical Specialist, and Assistant Head Nurse, Pediatric Cardiology are all highly descriptive job titles. When the job title consists of more than one word, the word used *first* should indicate the primary commitment of the assigned tasks (chemotherapy nurse specialist vs. clinical nurse specialist, Oncology; diabetic teaching nurse vs. clinical nurse specialist, Endocrinology).

The summary statement is a brief, one-sentence statement of the job's purpose with reference to data, people, and things. The summary should convey an overall impression of the job's nature and scope and should differentiate the job from all others in the department. The summary statement should include a clear statement of occasional or subsidiary responsibilities, indicating the percentage of time devoted to incidental duties. The summary statement for a head nurse or patient care manager position might read: "Directs, supervises, and coordinates the planning, implementation, and evaluation of patient care by primary care registered nurses on a single nursing unit. Acts as management resource to nurse educators and nurse researchers during 15 percent of total work time."

Clarification of reporting relationships places the job in relation to the organizational chain of authority by indicating the position title of the supervisor to whom the incumbent reports.

A task is a series of work activities that are performed to produce an identifiable service or product to be used by another. The task includes all conditions with which the employee must deal in producing and evaluating the intended service or product. In order for a job description to provide the information needed for recruitment and selection purposes, the section on Job Specifications or Job Tasks should list all of the job duties, in descending order of importance or amount of time consumed. Each duty should be described as an action-results statement. The job description for a rehabilitation staff nurse might include the following job tasks.

1. Performs a complete physical assessment and obtains a health history for each patient on admission and with each change in patient's condition.
2. Confers with the patient to develop a list of long- and short-range nursing care goals.
3. Uses identified goals, physical findings, and information from the health history to develop a written plan for the patient's nursing care.
4. Administers nursing care to assigned patients according to the care plan.
5. Guides associate nurses to care for the patient according to the written care plan.
6. Chairs weekly meetings of all members of the patient's treatment team (members of other health care disciplines) for the purpose of coordinating efforts of multiple caregivers.
7. Consults with other members of the patient's treatment team to develop and implement a discharge plan for the patient.
8. Orients and serves as preceptor for a baccalaureate nursing student during a three-month clinical practicum.
9. Assists the rehabilitation clinical nurse

specialist to gather data for nursing research studies.

10. Monitors quality indicators identified by unit nursing staff as indices of nursing care quality.

Most nursing jobs include a variety of tasks. Some tasks, although legitimately a part of the job's usual responsibilities, are performed so rarely (3–4 times a year) that they do not warrant specific mention in the job description. For known but infrequent tasks and tasks that are unanticipated, but when they arise are clearly a part of the job, it is advisable to include a state-

ment such as "and other tasks as assigned by the manager" (McConnell, 1988) (Fig. 8–8).

In writing a job description, it is customary to group job tasks into functions. A staff nurse's job tasks might be grouped into patient care, educational, management, and research functions.

Job resources include machines, tools, procedures, programs, data, and supplies. Sometimes the description of job tasks/functions is expanded to include the materials, techniques, and methods to perform each task; such as "monitors weekly laboratory test reports for oncology clinic patients, and administers phar-

HOSPITAL XYZ

Job Description: Head Nurse, Rehabilitation Unit

Identifying Information

Position Code: NU-0025

Position Title: Head Nurse

Department: Nursing

Immediate Supervisor: Divisional Director, Long Term Care Nursing

Summary Statement

Has 24-hour, 7-day responsibility for managing personnel and material resources in the Rehabilitation Nursing Unit so as to facilitate patient care, education of nursing students, employee development, and health care research.

Responsibilities	Activities
1. Supervise patient care given by all personnel on the unit: nursing employees and students of all disciplines.	1. Maintain a safe, therapeutic care environment. 2. Make daily patient rounds to check patients' conditions and monitor quality of care being given. 3. Review patients' medical records to evaluate quality of care planning, implementation, evaluation, and modification. 4. Lead nursing staff to establish nursing practice and patient outcome standards that ensure high-quality care.
2. Secure, motivate, and counsel nursing personnel for the nursing unit so as to maximize their job satisfaction and occupational progress.	1. Interview and select personnel for the unit. 2. Plan and direct orientation of unit personnel. 3. Coach professional nurses to fulfill the roles of primary nurse and nursing case manager. 4. Counsel employees about continuing education, academic programs, career advancement.

Figure 8–8 Sample job description.

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| <ol style="list-style-type: none"> 3. Collaborate with nurse faculty to provide a clinical laboratory for baccalaureate and graduate nursing students.
 4. Facilitate conduct of nursing research studies by unit nursing personnel, graduate nursing students, and independent nurse researchers.
 5. Communicate the agency's philosophy, goals, services to members of the community, potential clients, health professionals, and students. | <ol style="list-style-type: none"> 1. Consult with nurse faculty in selecting unit patients for student assignment. 2. Assist in orienting nursing students to unit. 3. Coach primary nurses in fulfilling the role of preceptor to graduate nursing students. 4. Serve as rehabilitation nursing expert for nursing students' clinical seminars, grand rounds. 5. Teach clinical seminars to undergraduate, graduate nursing students on request of nurse faculty.
 1. Guide unit nursing personnel in identifying researchable questions from quality monitoring data. 2. Collaborate with nurse faculty, graduate nursing students, and independent researchers in identifying suitable research subjects, planning workable research procedures. 3. Provide unit nursing personnel with in-service or continuing education on research process, methods, and tools. 4. Assist nurse researchers in communicating results of research studies to unit nursing personnel.
 1. Assist other agency personnel to implement various health screening and health education programs for the lay public. 2. Serve as guest speaker on rehabilitation nursing and related topics for community groups. 3. Provide professional visitors, accreditation surveyors, and potential patients or clients with a guided tour of the rehabilitation nursing unit. |
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Job Prerequisites

Baccalaureate degree in nursing

Certification by the Association of Rehabilitation Nurses

Two-years' staff nurse experience in rehabilitation nursing

One year experience as team leader, primary nurse, or nursing case manager

Working Conditions

Patients are often depressed, irritable, and exhibit varying degrees of physical and emotional dependency on caregivers.

Patients and significant others require detailed and repeated instruction for home care measures—are often resistant or noncompliant to such teaching.

Caregivers are a heterogeneous mixture of experts, neophytes, and students in multiple health disciplines, many of whom are not experienced in interdisciplinary care planning and evaluation.

The physical environment is crowded from the widespread use of large equipment to move, turn, and transport disabled patients. The unit is noisy because of the continuous movement of patients from unit to physiotherapy, occupational therapy, speech therapy, and other rehabilitation services.

Figure 8-8 Continued

macy-prepared chemotherapy fluid mixtures intravenously as prescribed."

Job context includes the physical, psychological, and emotional context in which the job is performed, and the job's interrelationships with other jobs; such as "busy emergency room," "inner-city ambulatory surgical clinic," "tension-packed trauma unit," or "project leader for a multidisciplinary care team."

Job specifications are the personal qualities that an employee must possess to execute the job satisfactorily. Usually job specifications include descriptions of required knowledge, skills, attitudes, temperament, and experience.

A good rule of thumb for writing a job description is to explain the job's duties, responsibilities, and conditions with enough detail and logic that an uninformed outsider would have no difficulty visualizing job tasks and understanding the purpose and significance of job activities.

The job analyst should use simple, direct narrative style in writing the job description, avoiding unfamiliar terminology and complex sentence structure. Each statement should begin with an active verb that describes the worker's behavior as graphically as possible. For example: "Prepares and posts an eight-week time schedule for unit nursing personnel," "Conducts individual conferences with employees to provide counsel or discipline," "Writes nursing care plans for all newly admitted patients," "Administers ordered medications to assigned patients," or "Posts physician's orders for medications, treatments, and diagnostic tests." The auxiliary verb "may" should be used solely for tasks that only selected job incumbents perform. For example, "May prepare a written change of shift report, which highlights general condition and special care needs for each patient cared for by the team."

When the first draft of a job description has been prepared, the analyst should take it to the employee who was interviewed or observed and the employee's supervisor for criticism and suggestion. Critical review by the incumbent and

her or his superior enables the analyst to eliminate errors and correct misunderstandings before the final draft of the job description is used for job evaluation.

MEMO CAPSULE

Job Description

- Job title: Role designation
- Job code: Relation to other jobs
- Summary statement: Overall concept
- Functions: Action categories
- Responsibility: Hierarchical level, subordinates
- Principal duties: Ordered by importance
- Subsidiary duties: Occasional, incidental

After each job description has been written, scrutinized, and edited, it should be compared with the standard job description for that position in the U.S. Department of Labor's *Dictionary of occupational titles*. This reference contains sample job descriptions for 22,000 job titles in common use in this country (U.S. Employment Service, 1991).

Rapid social and technological change cause continuous modification of health industry jobs. Job descriptions must be reviewed and updated periodically to be kept accurate. At the current rate of change, most nursing department jobs should be reviewed every three to four years. If job analysis reveals major changes in job purpose, direction, scope, or requirements, the job description should be rewritten and the job re-evaluated by one of the two quantitative methods: factor comparison or point system.

The average nursing department contains as many as 10 different nursing jobs: vice-president of nursing; assistant or associate director of nursing; divisional nursing director; clinical nurse specialist; head nurse or patient care manager; nurse clinician; staff nurse; practical or vocational nurse; and aide. Reviewing, analyzing,

ing, describing, and evaluating all ten jobs every three years requires the expenditure of considerable time and effort by involved employees. However, the expense of the investigation is justified by the fact that job analysis and job evaluation force a nurse manager to analyze how departmental work is performed, how total workload is divided among different worker categories, and how work could be better organized.

Methods of Job Evaluation

There are four methods by which job evaluation is carried out. Ranking and job classification are nonquantitative methods for evaluating jobs; factor comparison and point system are quantitative methods.

Job ranking

Ranking is the simplest, quickest, least precise means of job evaluation. It provides only a rough evaluation of jobs, because each job is compared as a whole with all others in the department. Ranking consists of arranging jobs in a hierarchy from highest to lowest complexity. Although ranking differentiates jobs of greater and lesser value to the agency, it does not reveal the degree of difference in value between jobs at different levels of hierarchy.

If there are many jobs in the nursing department, the ranking process can be facilitated by recording each job description on a 4- x 6-inch file card to permit reshuffling of cards as comparisons are made. The method of paired comparisons should be used to evaluate each job against every other in the group. The results of the comparisons establish a rank ordering of jobs from most to least valuable from a financial standpoint. After jobs are ranked, the entire series of jobs should be divided into grades (groups of similar jobs) and a pay range established for each grade. A simple ranking of nursing jobs, from positions of higher to lower complexity and value, using data included in the job descriptions, might yield a nursing hierarchy such as the following:

Vice-president of nursing
Associate director of nursing
Divisional director of a clinical nursing specialty
Clinical nurse specialist
Head nurse or patient care manager of a nursing unit
Staff nurse
Practical or vocational nurse
Nurse aide

The advantage of the ranking method of job evaluation is ease and speed. The disadvantage of the ranking method is the fact that its ease of use may tempt the analyst to rank all jobs in a nursing department or division without first obtaining definitive information about job content. If jobs are ranked on the basis of inadequate or inaccurate information, the resulting hierarchy will not reflect reality of the work situation, and employee dissatisfaction will result.

Job classification

Another nonquantitative means of job evaluation is job classification. In this method, as in all others, job data should be gathered and descriptions written before the evaluation is attempted. Once these preliminary steps are accomplished, the job-evaluation committee should select the compensable factors to be considered when grouping jobs into grades. The committee should decide the number of job grades to be used and prepare a definition and set an appropriate pay range for each grade. The number of job grades needed depends on agency size and the range of skill and responsibility within the total work force. For example, the job-classification system that was used for some time by the U.S. Civil Service consisted of a general schedule in which jobs were divided into 18 grades, with grades 1 through 4 representing jobs of minimal skill level, grades 5 through 11 representing medium-level technical and supervisory positions, and grades 11 through 18 representing high-level professional, managerial,

and administrative positions (Bellocq, 1985; Livy, 1975). Description of each job grade should be sufficiently detailed and precise to enable similar jobs to be grouped together and ensure that groups of jobs are differentiated according to the amount of compensable factors present.

Next, a benchmark job should be identified to typify each job grade. To qualify as a benchmark job, a position must be numerically important in the total work force; stable in job content over a long period of time; well-known to managers, line workers, personnel experts, and job analysts who constitute the Job-Evaluation Committee; permit a clear description of job duties; and represent a wide range of jobs (Belcher, 1955). The benchmark job selected for a job grade should be analyzed to determine the number and degree of compensable factors present. Then, an appropriate monetary value should be assigned to each benchmark job on the basis of prevailing market rate. Each of the remaining jobs in the department should be slotted into an appropriate job grade by comparing compensable factors in each job with those in the benchmark job. After all jobs have been slotted, the accuracy of grade placement for each job can be checked by comparing the prevailing market wage for the job with the salary range established for the grade to which the job is assigned. If the two salaries are comparable for all jobs in the hierarchy, the grading scheme is appropriate.

The job-classification method of job evaluation is useful, because it differentiates jobs more clearly than simple ranking and is easy for employees and managers to comprehend. It is natural for people to think of jobs as being grouped with other, similar jobs when they discuss wage and salary issues. Thus, it is easy for workers and managers to identify common factors among several jobs when writing grade descriptions and slotting jobs into grades according to similarity to a particular benchmark job. The primary disadvantage of the job-classification system is that a job may include some

tasks characteristic of a higher job grade and some tasks characteristic of a lower job grade, causing analysts to disagree about proper grade placement for the job.

A grade-classification system for a hospital might group nursing jobs in the following manner.

Grade 16: High-level administrative activities, with a large measure of discretionary power in planning, budgeting, directing, and controlling activities of a large work force of diverse levels and types of workers in several geographical locations (doctoral level preparation: Vice-President of Nursing).

Grade 15: Experienced practitioner and mid-level manager, with responsibility for planning, organizing, staffing, supervising, coordinating, and monitoring the work force of an entire nursing specialty division (master's level preparation: Divisional Nursing Director).

Grade 14: Highly skilled subject specialist with departmentwide responsibility for care planning, problem solving, research, and patient and staff teaching, with advisory, rather than command, responsibilities toward other staff members (master's level preparation: Clinical Nursing Specialist).

Grade 13: Skilled practitioner and first-level manager with total responsibility for day-to-day planning, direction, and evaluation of the efforts of a primary work group on a single patient unit, with direct supervisory responsibility for a staff of 15 to 30 employees (master's level preparation: Head Nurse or Patient Care Manager).

Grade 12: Professional caregiver with considerable responsibility for independent decision making relative to the adaptation of hospital routines procedures to the care of specific patients, but little responsibility for the direction of other health workers (bachelor's preparation: Staff Nurse).

Grade 11: Highly skilled technical caregiver with some responsibility for programmed decision making within the limits of well-defined protocols. No responsibility for the direction of

other workers (associate degree preparation or diploma preparation: Staff Nurse, Team Member or Associate Nurse).

Grade 10: Low-level technical specialist with narrowly defined responsibility for caregiving under direct supervision of a professional worker. No responsibility for planning or directing the work of others (post-high school preparation; Practical Nurse).

Grade 9: Ancillary worker with responsibility for carrying out the orders of others relative to unskilled aspects of patient care while working under constant supervision by a professional worker (High-school education: Nursing Aide).

Factor comparison method

Factor comparison is a quantitative technique in which each job in the entire nursing department is compared with every other, one factor at a time (Youngkin, 1985). As with other job-evaluation techniques, factor comparison should not be undertaken until all jobs have been analyzed and a current job description developed for each. Then, a small number of compensable factors should be selected and defined. Analysts in several agencies used the following five factors in evaluating jobs: mental requirements; physical requirements; skill requirements; responsibility; and working conditions. Analysts in one agency evaluated nursing jobs according to three factors: job knowledge; judgement; and responsibility (Bracken and Christman, 1978). The job-evaluation committee should select several benchmark jobs at different levels in the job hierarchy. Each benchmark job should be analyzed, and the compensable factors present should be ranked in relation to their importance in the benchmark job. Then, the prevailing market wage for each benchmark job should be apportioned among the five compensable factors. Finally, ranking of benchmark jobs by factor should be compared with the pricing of benchmark jobs through factor valuation. If results of the two assessments are comparable, remaining jobs in the system

should be evaluated by factor ranking and factor costing and slotted into the job hierarchy, using the benchmark jobs as fixed reference points.

The advantage of the factor comparison method of job evaluation is that the two-way analysis used pinpoints jobs in the total hierarchy where salary level varies significantly from the combined value of compensable job factors. The disadvantage of the factor comparison technique is that the reconciliation of factor ranking with factor costing is extremely time-consuming. Using the nurse aide and the head nurse as benchmark jobs in the nursing department hierarchy, and using the five classic compensable factors, the factor ranking shown in Table 8-1 might result. Factor rankings for the two jobs can also be shown on a matrix diagram (Table 8-2). The matrix diagram makes it possible to visualize relative differences between jobs but does not reveal the absolute difference in their values.

Factor valuation is the process by which each job is "costed out" in relation to each of its compensable factors. Using the nurse aide and head nurse or patient care manager as examples, and using \$36,000 as the average annual salary for a head nurse and \$24,000 as average annual salary for an aide, the compensable factors in

Table 8-1 Factor Ranking of Nursing Aide and Head Nurse Jobs

Factor Rank	Compensable Factors	
	Nursing Aide	Head Nurse
1	Physical requirements	Responsibility
2	Working conditions	Mental requirements
3	Responsibility	Skill requirements
4	Skill requirements	Physical requirements
5	Mental requirements	Working conditions

Table 8-2 Matrix Diagram of Factor Rankings of Nursing Aide and Head Nurse Jobs

Factor Rank	Compensable Factors				Working Conditions
	Mental	Physical	Skill	Responsibility	
1	Head nurse	Aide	Head nurse	Head nurse	Aide
2					
3		Head nurse		Aide	
4	Aide		Aide		Head nurse
5					

each job might be costed out as shown in Table 8-3.

Point system

Another quantitative method of job evaluation is the point system. Using this technique, each job is broken down into compensable factors, a numerical value is assigned to each factor according to its relative importance, and points awarded each factor are summed to yield a total point value for the job. As a final step, point totals are converted to dollar values, and jobs are ranked from highest to lowest pay levels (Folts, 1963).

To use the point system to assess the financial value of health agency jobs, the job-evaluation

committee must not only identify compensable factors to be investigated but also must decide the degree to which each factor is present in different jobs. Points to be awarded each job are determined by multiplying the going rate for the job by an arbitrarily selected constant, such as 0.73 or 1.23, and rounding off the result to the nearest whole number. (The same constant should be used to identify total points for each job.) The total points for each job are then apportioned among the identified compensable factors.

The advantage of using points rather than dollar amounts to evaluate the contribution of each job on a factor basis is that analysis is less skewed by the analyst's knowledge of current wage rates. Wage rates are more influenced by the negotiating strength of different employee unions than by the absolute value of each job toward total agency functioning.

Job families vary with respect to the number and type of compensable factors present. The point system is better suited to job evaluation in a health agency, because several job families are represented in the work force. A different set of compensable factors and a different point spread can be established for each job family—clerical, craft, clinical, managerial—enabling the analyst to accurately weight the most important factors in each.

When the point system is used to evaluate jobs, the job-evaluation committee should establish a manual that defines the compensable

Table 8-3 Factor Valuation of Nursing Aide and Head Nurse Jobs

Compensable Factors	Nursing Aide (\$)	Head Nurse (\$)
Physical requirements	8,000	5,000
Mental requirements	3,000	9,000
Skill requirements	4,000	7,000
Responsibility	4,000	11,000
Working conditions	5,000	4,000
	<u>24,000</u>	<u>36,000</u>

Table 8-4 Degrees of Experience in the Staff Nurse Position

First Degree	Second Degree	Third Degree	Fourth Degree	Fifth Degree
0-3 months	3-12 months	1-3 years	3-5 years	More than 5 years

factors used in evaluating each job family, subfactors within each factor, and degrees of each subfactor that may be present in each job. In some point systems each subfactor is divided into five degrees. In other point systems not all subfactors are divided into the same number of degrees. For a staff nurse position the subfactor "experience" might be divided into the five degrees shown in Table 8-4, and for the position of patient care manager the subfactor "Supervisory Span of Control" might be divided into the five degrees shown in Table 8-5.

After the total point values have been determined for each job, a graph should be developed that plots point ratings along one axis and salary levels along the other. By drawing a trend line to connect points on the graph, the manager can readily identify any job that is markedly over- or underpriced for its total factorial point value. Figure 8-9 could represent the point-salary relationships for nursing positions in a nursing division. Interpretation of the trend line in this graph should lead the job-evaluation committee to reexamine the surgical technician and nurse practitioner jobs as possibly overpaid in relation to other positions in the division and the divisional director's job as possibly underpaid in relation to other positions.

Job Redesign

High nurse turnover has stimulated nurse executives in some agencies to redesign nursing jobs as a means of increasing nurses' work motivation and job satisfaction (Steers and Porter, 1987). Common methods for redesigning jobs are: (1) job rotation; (2) job enlargement, and (3) job enrichment. Job rotation consists of moving an employee from one job to another, usually in the same unit or department. The purpose for job rotation may be to increase the employee's range of skills (preparing a staff nurse to "float" to a different nursing unit to meet emergency staffing needs) or to give an employee the perception of variety in job content. However, critics contend that job rotation does not change the basic character of assigned jobs, so job rotation is likely to burden a disinterested worker with several boring, monotonous jobs, rather than one (Ivancevich and Matteson, 1987).

A second method for job redesign is job enlargement. Job enlargement is a type of despecialization (i.e., increasing the number of tasks that an employee performs). Experts claim that the increased task range that occurs following job enlargement requires longer orientation but increases job satisfaction by reducing boredom. However, experts caution that employees with

Table 8-5 Degrees of Supervisory Span of Control in the Nursing Supervisor Position

First Degree	Second Degree	Third Degree	Fourth Degree	Fifth Degree
1 to 10 employees in same job description in same geographical area	10 to 20 employees in 1 to 2 job descriptions in same geographical area	20 to 30 employees in 2 to 3 job descriptions in same geographical area	30 to 40 employees in 2 to 3 job descriptions in 2 areas	40 or more employees in 4 or more job descriptions in 3 or more areas

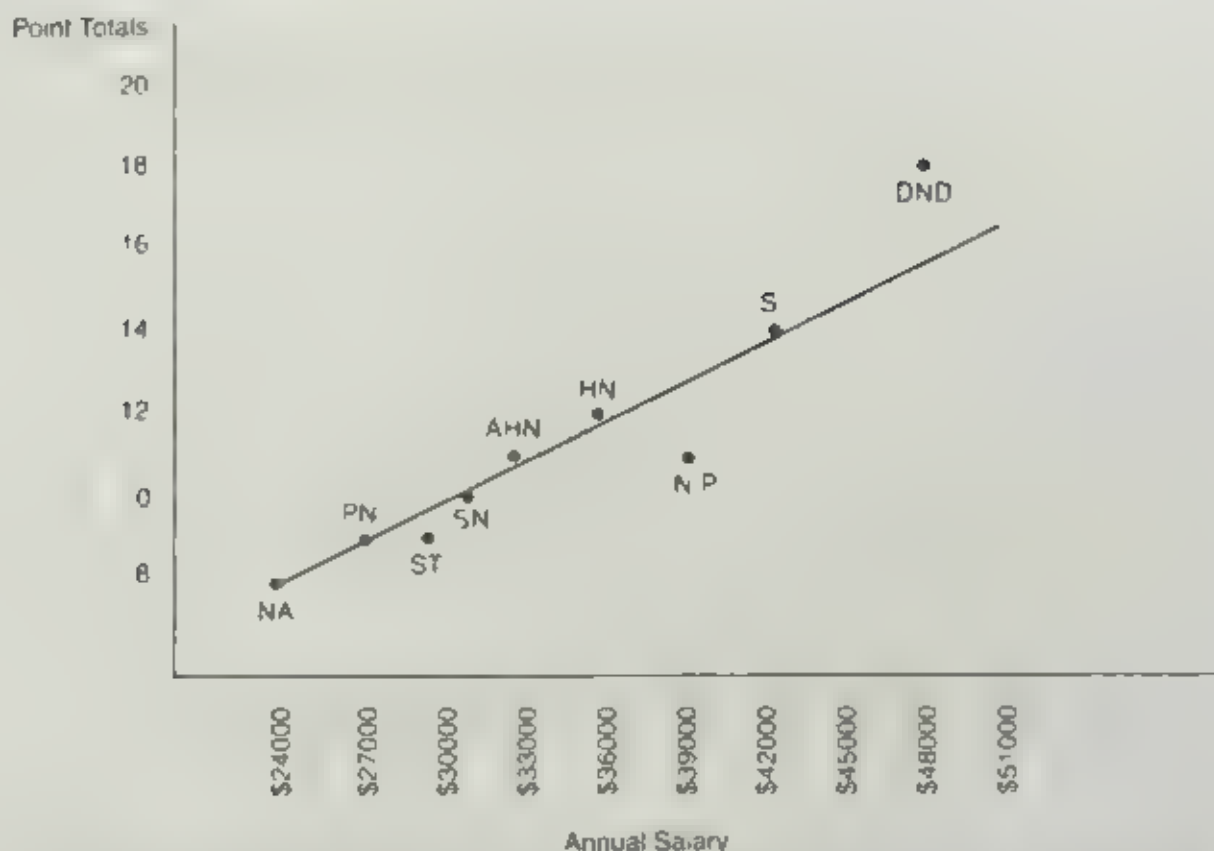


Figure 8-9 Relationship between factor point totals and salary. Key: NA = nursing aide; PN = practical nurse; ST = surgical technician; SN = staff nurse; AHN = assistant head nurse; HN = head nurse; NP = nurse practitioner; S = supervisor; DND = divisional nursing director.

short attention span or the inability to comprehend complexity cannot adapt to enlarged jobs.

A third method of job redesign is job enrichment, or increasing job depth by providing feedback on performance, opportunities for new learning, control over job-related resources, and personal accountability for time scheduling and work outcomes. Generally, major changes in work methods, work flow, communication patterns, decision methods, and supervisory practices are necessary to enrich jobs. To enrich a particular nursing job, it is necessary to alter the job descriptions of all positions that interact with the job being enriched. If the vice-president of nursing and nurse administrators decide to enrich the staff nurse job in order to retain promising entry-level employees, job descriptions for the nurse aide, practical nurse, clinical specialist, head nurse or patient care manager,

and divisional nursing director must be updated as well—to ensure that these related personnel behave in ways that support the increasing autonomy and discretion conferred on employees in the enriched staff nurse position. Furthermore, the enriched jobs must be reevaluated and “costed out” with reference to changes in amount of compensable factors to establish fair salary levels for incumbents.

SUMMARY

In order to assign personnel appropriately, reward them fairly, and promote them wisely, a nurse manager must understand the specific job requirements and responsibilities of each subordinate. Nurse managers are responsible for reviewing and updating official job descriptions for all categories of nursing personnel. Subtle evolutionary changes in organization

RESEARCH BRIEF

Job Activities of Registered Nurses

Purpose: Conduct a job analysis of entry-level RN practice as a basis for determining the content validity of the RN licensure examination.

Subjects: Random sample of 11,624 RNs licensed on the basis of 1984 and 1985 NCLEX-RN examination scores; stratified by nationality (domestic/foreign), state, type of education program, and age.

Method: A questionnaire was mailed to members of target population containing a list of 222 nursing activities or tasks common to a variety of nursing practice settings. For each task, the subject indicated: (1) the relevance of task to work setting; (2) the frequency of the subject's delegating task to another; (3) the frequency of the subject's task performance; (4) patient impact if the task was omitted. Responses were analyzed to determine the frequency of subjects' performance of each task and each task category.

Results: Most subjects worked in acute care settings, especially general medical-surgical and intensive care. Domestic- and foreign-educated nurses did not differ significantly in work setting. Baccalaureate nurses were more likely to work in large institutions; associate degree and foreign nurses in small or medium-size institutions. The most frequent nursing activities were those associated with routine care measures, monitoring clients at risk, and protecting clients. The least frequent were assisting clients with parenting, immunizing and screening, and providing emotional/behavioral support.

Application: The professional practice model includes helping clients to maintain health, prevent illness, and perform self-care, as well as caring for chronically ill and curing acutely ill patients. Sample nurses focused on sickness care, not health promotion. If practice patterns have not changed since 1985, staff nurses may lack the wholistic, long-range, systemwide approach needed to fulfill a case manager role.

Source: Yokum, C. Practice patterns of newly licensed registered nurses: Results of a job analysis study. *Journal of Professional Nursing* July-August 199-206, 1987

structure and function impose new demands on all employees. Therefore, all nursing jobs should be reanalyzed and reevaluated at regular intervals. Data for job evaluation should be obtained from self-reports by incumbents, as well as from observations by nurse managers and job analysts.

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Group Work and Team Building

Of a truth, men are mystically united

THOMAS CARLYLE

OBJECTIVES

After reading this chapter, you should be able to.

1. Identify each of the standing committees in your nursing organization as being either an executive, advisory, or working committee.
2. Identify two problems in your organization for which an ad hoc committee is needed to investigate the causes of those problems and suggest possible solutions.
3. Analyze the functions of a continuing group of which you are a member to identify the person who usually plays each of the following roles: leader, idea generator, evaluator, problem solver, and moral supporter.
4. Diagram the communication flow during a committee meeting to determine whether message transmission follows a fan, chain, circle, or all-channel pattern.

The nurse manager is expected to organize employees into smoothly functioning work groups. A group is an entity consisting of several individuals who share common interests, values, and norms; who interact on a regular basis; whose interactions have a predictable character. Cartwright states that all group objectives are of two types: (1) achievement of a specific group

goal, and (2) maintenance of the group itself (Cartwright and Zander, 1960). According to Zander (1985), groups serve many functions in modern society, among which are

1. Protecting members from harm
2. Solving problems for members or others
3. Making resources available to others

4. Accomplishing arduous tasks
5. Setting rules or standards for others
6. Changing opinions of outsiders
7. Teaching information or skills to members
8. Integrating information from diverse specialists
9. Giving advice to others
10. Administering a complex organization

The different types of groups that comprise a nursing organization perform all these functions.

"LINKING PIN" STRUCTURE

The formal organizational structure of many health agencies uses a "linking pin" device (Fig. 9-1). Workers in key positions are appointed to overlapping groups to facilitate lateral and vertical transmission of information throughout the agency. Middle and top nurse managers are useful as "linking pins" because of their familiarity with agencywide issues and resources and contacts with personnel in all parts of the organization. The vice-president of nursing is apt to be a member of the agency's Administrative Council as well as chairperson of the Nursing Administration Committee. A nursing division director will be member of the Nursing Administrative Committee as well as chairperson of a functional nursing division. The head nurse of a medical unit may be member of the Nursing

Procedures Committee, as well as member of the head nurses' committee.

STANDING COMMITTEES

Many operational functions are delegated to standing committees within a health agency. A committee with decision-making power, such as the health agency's Administration Council, is an *executive* committee; it is empowered to both make decisions and take action. A committee that is given guidelines to follow in executing a predetermined, well-specified task, such as a Nursing Procedures Committee, is a *working* committee. The primary responsibility of a working committee is not to take independent action but to render decisions according to specific protocol or implement a process designed by administrators. A committee that is to provide information and opinion to an executive or executive group is an *advisory* group, and it has no defined task beyond apprising the executive of agency needs and opportunities and providing opinion concerning proposed programs and activities. The trend toward organizational decentralization has caused nurse managers to be appointed to institutionwide committees in increasing numbers.

Although standing committees are effective in handling predictable, recurring organizational tasks, *ad hoc* committees are needed to address unusual, short-term issues that cannot be handled effectively by departments or committees

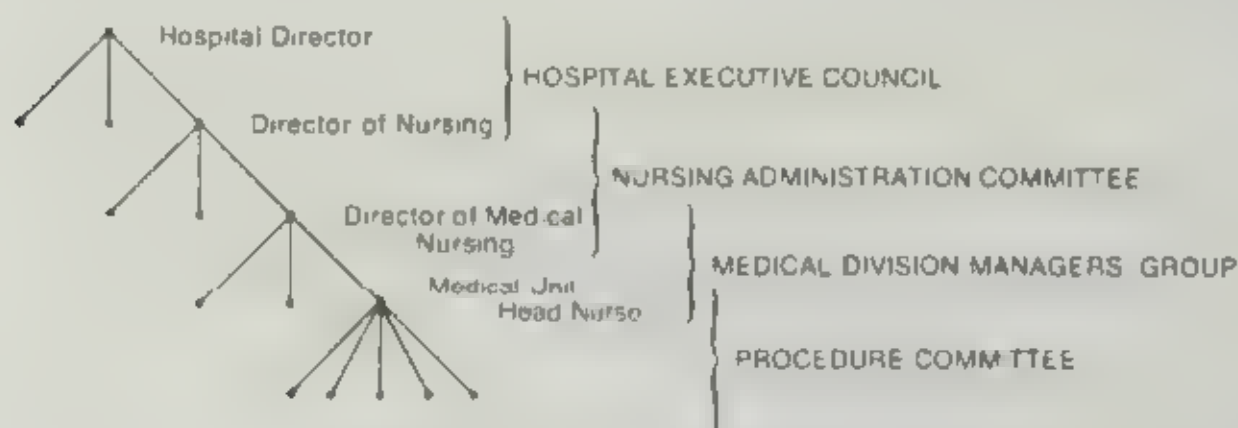


Figure 9-1 "Linking pin" organizational structure.

that are part of formal organization structure. An ad hoc group is a temporary deviation from the usual organizational structure that is designed to cope with unexpected change in the agency's internal or external environment. Ad hoc committees have several advantages. First, there is less resistance from managers to forming one than to forming an additional standing committee, as a temporary group is unlikely to upset the agency's delicate political balance. Second, membership for an ad hoc group can be chosen to represent only those divisions, department, units, and specialists most concerned with the target problem, thereby avoiding changes in overall policies and regulations. The mixture of personnel from different specialties and hierarchical levels enables an ad hoc group to take a fresh view of a problem's effect on agency goals and resources. Third, it is easy for an administrator to give a temporary group rich resources and freedom to move across organization boundaries to execute the group's charge in the shortest possible time. Fourth, an ad hoc group provides an arena in which to test the planning, negotiating, and leadership skills of young staff members. A staff nurse who successfully leads an ad hoc committee in implementing a nurse peer-review system may deserve to be promoted to a head nurse position. There are, of course, some disadvantages to ad hoc groups. First, because temporary committees are empowered to cut across departmental boundaries and disregard usual lines of communication, a large number of ad hoc groups tend to weaken formal organization structure by encouraging personnel to ignore usual operating procedures. Second, an ad hoc group may produce lower-quality decisions than a standing committee, because the temporary nature of members' association discourages effective working-through of partisan concerns that affect decision quality. Third, it is possible for an ineffective executive to appoint an ad hoc committee in order to delay action or avoid taking an unpopular action. When an ad hoc group is created to satisfy an executive's personal

needs, the group's hidden agenda will subvert members' efforts to reach declared goals. The increasing specialization of health professionals has led to the appointment of temporary "project teams," which are combinations of the diverse specialists needed to implement different aspects of a complex health care project (Jacobsen-Webb, 1985). Growing recognition of the expertise possessed by clinical nurse specialists has caused them to be included in many of these ad hoc groups.

GROUP COMMUNICATION

In all working groups—committees, project teams, workshops—work is accomplished through communication of ideas and opinions among members. To effectively guide employees, a nurse manager must possess highly developed group skills, as well as one-to-one communication skills. The principles that govern communication within a group setting differ from those governing simple person-to-person interchange. A manager is expected to communicate differently with a peer, subordinate, or superior in a group situation than when interacting with that same individual alone. Basic principles of group communication must be adapted to such group characteristics as size, composition, sophistication, organization, and structure.

To begin with, communication within a group is different from simple one-to-one interchange, because more interpersonal combinations and interactions are possible (Megginson et al., 1983). When communicating with another in a group, a person's behavior is conditioned by both a desire to exchange information with that other and awareness that their interchange is observed by others. Some find this "on stage" aspect of group communication distracting. The manner in which individuals communicate within a group is affected by group size and composition, group position within the organization structure, the nature of the group task, group cohesiveness, and the type of leadership within the group (Rubin, 1984).

The steps of the communication process are idea generation, encoding of information, message transmission through one or more channels, message receipt, and information feedback to sender. A skillful manager can improve communication at each step of this process by using redundant symbols, multiple channels, and repetitive feedback. Message information may be encoded as visual or audible symbols and transmitted through speech, gesture, facial expression, pictures, diagrams, or documents. Each word, gesture, and picture may have multiple meanings, and these meanings are culturally conditioned. Individual differences in expression and interpretation make it unlikely that any two group members will perceive the same meaning in a communication from a third member (Lancaster, 1983; Wlody, 1981).

Size of the Group

The number of members in a group has a predictable effect on group communication and productivity. In general, large groups are more productive than small groups, perhaps because members bring a greater variety of experience to discussions. Moreover, members feel freer to express disagreement in large groups than in small ones (Swap, 1984b). However, more skill is required for the leader of a large group to guide members toward consensus, because there is greater diversity to be resolved. As group size increases from 6 to 12, it becomes more difficult to achieve consensus when time is limited. Therefore, a small group usually reaches agreement more quickly than a large group. In small groups, leaders can more easily influence group decisions, and each member has more opportunity to contribute ideas.

Group Syntality or Cohesiveness

Another factor that influences the quality of group communication is group syntality or cohesiveness. Within a group setting, some messages are directed toward the total group, and some are directed to individual members. Group

syntality causes the entire group to act as a unit and be perceived as a unit, as revealed in the following behaviors:

1. A group preserves its own characteristic behavior, habits, and flavor, despite continuous replacement of individuals.
2. A group tends to respond as a whole to stimuli directed at a part of the group.
3. A group evidences memory for group experiences.
4. A group demonstrates drives that become increasingly integrated (acquisition, aggression, preservation).
5. A group experiences moods (such as hostility, depression, elation) that alter behavior and energy output.
6. A group demonstrates collective deliberation when a planned course of action is blocked.
7. A group demonstrates collective volition following the resolution of members' conflicting viewpoints.
8. A group exercises choice in admitting and rejecting individual members (Cattell, 1965).

Factors that predispose to group syntality are strong member attraction to the group, small group size, similarity of members' backgrounds and interests, success in achieving group goals, and common external threat. Cohesiveness increases a group's power over individual members, with the result that strong pressure is exerted for uniform behavior and attitudes. This pressure for uniformity is so great that members may discredit their own perceptions and judgment in order to move toward majority opinion when faced with a conflict situation (Tosi and Carroll, 1976). Pressure for uniformity may be strong enough to break close interpersonal ties established with persons outside the group. For example, an individual may cease to consult a trusted mentor whose opinion differs from group members' opinions on an important issue.

MEMO CAPSULE

Work Group Cohesion Factors

- Strong member attraction
- Small group size
- Similar backgrounds and interests
- Group success in goal achievement
- Perception of common external threat

Reasons for Joining the Group

Communication within a group is influenced by a member's motivation for joining and attraction felt for other group members. Some join a group because they admire group members and want to spend time with them. If given a choice, a staff nurse might join the Quality-Improvement Committee rather than the Procedure Committee, because a close friend is a member of the former group. Under such circumstances, the Quality-Improvement Committee's chairperson need not expect the new member to participate enthusiastically in group discussion.

Some individuals join a group to achieve some desired end. Thus, a head nurse may seek membership in the Quality-Improvement Committee, hoping that successful performance on an agencywide committee will increase the likelihood of job promotion. Such a person would probably take an active role in group decisions.

Some join a group to obtain protection from threatening environmental factors. For example, a head nurse who has been treated unfairly by a chief executive might transfer to a clinical specialist position to acquire eligibility for labor union membership with hope that the labor contract and union representative will defend her from unfair management practices.

Groupthink

Not only are individuals attracted to a group because of their liking for members; once assim-

ilated into the group, new members tend to adopt the behavior and attitudes of admired group members.

According to Rogers (1987), syntality becomes counterproductive when it creates a tendency for "groupthink." Groupthink is a neurosis that develops in extremely cohesive groups with high levels of amiability and esprit de corps (Janis and Mann, 1977). Groupthink prevents effective decision making by eliminating the diversity of information and plurality of opinion needed for a multifaceted approach to complex issues. Symptoms of groupthink that could be perceived by an alert manager are suppression of dissent, close-minded discounting of warnings from outsiders, and illusions of invulnerability. On detecting these signs during group discussion, the leader should provoke members to reexamine group decisions and challenge individuals to express reservations and disagreements.

The nurse manager should recognize that a possible disadvantage of effective teambuilding is a tendency for "groupthink" among members of a cohesive work group. He or she can use the following techniques to minimize the probability of groupthink by nurses who are part of a decision-making group, such as nursing unit staff members, task force members, or nursing administrative council.

1. Encourage team members to air objections and doubts about evaluations, conclusions, claims, and plans.
2. When introducing an issue for group deliberation, present the problem facts and time and dollar constraints for the resolution, but do not suggest possible causes or solutions until the team has explored the problem in detail.
3. On a rotating basis, assign one or two team members to the role of "devil's advocate," who will force the group to clarify assumptions and claims underlying each argument and challenge the accuracy and relevance of each.

MEMO CAPSULE

Signs of Groupthink

- Inability to criticize suggestions by any group member
- Too quick agreement with group members' ideas
- Ignoring or discounting evidence that counters group plans
- Exclusion of outsiders from group discussions

4. Facilitate full participation by all members in discussing and solving each group problem.
5. Encourage reality testing of group analyses and plans by inviting a trusted outsider into the group on a temporary basis to examine the group's assumptions and plans from a fresh viewpoint.
6. After the group has reached apparent consensus on a cause and solution for a common problem, provide a brief cooling-off period, followed by a "second-look" meeting on the issue. In this second meeting, stimulate members to compare earlier, discarded solutions with the accepted solution and to anticipate possible problems associated with the chosen solution (Brightman, 1988).

Group syntality can also predispose members to social loafing and deindividuation. According to Swap et al. (1984a), groups inhibit the best efforts to individuals. Furthermore, there is a greater tendency for effort inhibition and loafing as group size increases. Under some conditions, membership in a cohesive group weakens one's objective self-awareness, transforming a rational, self-directed person into an emotional, other-directed automaton. Such deindividuation is most apt to occur in a highly cohesive group, where mutual attraction is high and

members respond to the group as a whole rather than to individuals.

Roles of Group Members

The distribution of roles affects communications within the group. As functions differentiate within a developing group, some members adopt specialized roles, such as leader, idea generator, evaluator, problem solver, and moral supporter (Fig. 9-2). Assumption of a specialized role causes the role player to send certain types of message more often than others. A leader's messages are apt to include giving opinions, making suggestions, giving examples, repeating, explaining, and answering questions. An evaluator's messages often include giving information, expressing criticism, disagreeing, agreeing, expressing frustration, professing disbelief, and citing exceptions. A problem solver's messages usually include asking for repetition, asking for opinion, giving interpretation, asking questions, mediating disagreement, and making suggestions. A moral supporter's messages often consist of appeasing, praising, encouraging, conciliating, joking, and offering irrelevant comments.

In analyzing the dynamics of a working group, it is important to distinguish a member's role from his or her methods. Leaders do not all lead in the same way; idea generators do not

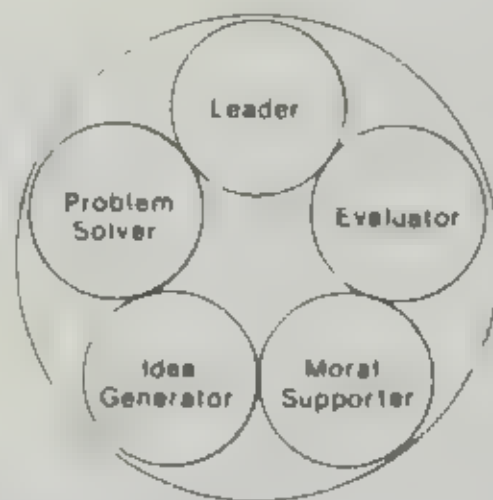


Figure 9-2 Differing roles of group members.

all provoke thought in the same way. There is need for more than one leader in a group, because different skills are needed to guide task and relational activities. One leader may favor directing, another concentrate on seeking consensus, a third specialize in keeping group discussion on track. Sometimes an idea generator makes direct suggestions, sometimes she or he offers ideas in the form of analogies or tales of previous experience. Some critics openly disagree with others' ideas; some register opposition or disagreement by asking searching questions of coworkers. Some problem solvers provide imaginative interpretations of known facts; some creatively adapt older, nonfunctional methods; others meld majority and minority opinion into effective consensus.

Role of the leader

The role of group leader is well recognized. Some theorists assert that leaders do not exist apart from groups. Stogdill claims that for leadership to develop, three conditions are necessary: (1) a group must exist; (2) the group must be expected to accomplish a common task; (3) responsibility and function must be differentiated among members (Stogdill, 1953). If leadership is the process of influencing group members in setting and achieving goals, a leader is the person who provides the influence.

Leaders differ in manner of investiture, leadership style, and preparation for leadership. All three factors influence a leader's communication with group members. Some leaders are appointed, some are voted into position, others emerge from the situation and ascend to leadership without invitation. Leaders may demonstrate autocratic, democratic, or laissez-faire methods in dealing with coworkers. Some persons are trained for leadership through a formal education program or apprenticeship with an experienced leader. Others have no preparation for leadership apart from earlier "followership."

Manner of investiture. A group with no appointed leader is referred to as "leaderless"; but

experts say that no group remains leaderless for long. As a group organizes for action, members' needs for structure provoke dominant members to undertake one or more leadership functions. Leaders who emerge from a situation to seize leadership during crisis tend to communicate in more aggressive, authoritarian fashion than appointed leaders.

Effects of leadership style. White and Lippitt (1960) reported that autocratic leaders were more likely than democratic or laissez-faire leaders to issue disruptive commands, that is, to give directions that interfere with members' expressed wishes and ongoing activities. They were more inclined to give praise and criticism than democratic or laissez-faire leaders. Democratic leaders were more likely to give suggestions than autocratic leaders and more apt to give information than laissez-faire leaders. Democratic leaders encouraged self-direction, whereas laissez-faire leaders gave responsibility to members without preparing them to handle new responsibilities. The three leadership styles affected members' communication patterns. Autocratic leadership produced hostility and scapegoating of weaker members. Democratic leadership produced group-mindedness (frequent use of "We"; infrequent use of "I").

As indicated, the major goals of a group are task achievement and group maintenance. Leadership behaviors for task achievement include planning for goal attainment, stimulating action toward the goal; focusing attention on the goal; clarifying confusion; providing information; and evaluating group actions. Leadership behaviors for group maintenance include relieving tension; providing praise; encouraging self-direction; facilitating the expression of minority views; encouraging compromise; and settling disputes. Few managers are skillful in both task and relational leadership, perhaps because the two approaches are rooted in contrasting personality types. A task leader continually presses workers to reexamine ideas and adjust behavior, thereby creating a degree of anxiety and resentment. A relational leader continually reaf-

firms members' values and behavior, minimizing criticism and smoothing conflict to facilitate member comfort and group cohesion.

As mentioned, groups have moods and pass through recognizable phases. At times, external events cause a group to emphasize task-related activities. At other times, internal or external events cause members to emphasize group-maintenance activities. When the Disaster Committee must overhaul an agency's disaster plan in preparation for a Joint Commission survey, a previously passive committee may overnight become a highly structured, goal-oriented group. When a vice-president of nursing learns that the nursing department must be downsized in order to conserve fiscal resources, the Nursing Administrative Council will temporarily abandon their usual administrative tasks and mobilize for mutual support and protection.

Preparation for group leadership. The nature of a nurse's preparation for leadership determines the nature of subordinates' communication. A trained leader is more likely than an untrained leader to direct discussion in a way that ensures the expression of minority opinion. Because minority opinions are a better source of problem solutions than majority opinions, a group in which minority opinions are freely expressed is more proficient in problem solving. Training for participatory leadership is better preparation for effecting attitudinal change in coworkers than is training for autocratic leadership.

An individual's career plan for leadership preparation should be multifaceted. A would-be leader should develop a broad, rather than narrow, range of abilities, to prepare for "specialization in generality." Broad abilities are called for to enable a generalist leader to do whatever needs to be done to facilitate task achievement and group maintenance for a specified employee group.

Stages of Group Development

Research shows that groups proceed through five stages of development from inception to

dissolution. These stages have been titled forming, storming, norming, performing, and adjourning (Tuckman and Jensen, 1977). The forming stage consists of entry of individuals into the group. While forming the group, members are primarily concerned about learning what contributions they are expected to make and what help they will receive from each other. The storming stage is characterized by emotional tension and hostility, as members challenge one another to acquire power and identify each member's interpersonal style. In the norming stage members disregard their disagreements to establish behavior rules that will maintain order and facilitate cooperation. According to Feldman (1987), managers play the major role in setting and changing group norms, because managers possess formal authority to inform subordinates about behavioral expectations, monitor employee performance, and implement sanctions against unacceptable behavior. During the performing stage members devote their energies wholeheartedly to the common task, supporting one another in solving problems and overcoming difficulties. As their work nears completion, the group reaches the stage of adjourning in which members feel a sense of task closure and begin to withdraw psychologically from other members and make themselves available for other relationships. Usually, as a group matures through these stages, members learn to resolve conflicts more quickly and with less effort. However, groups can become arrested at one or another stage of development. When a group becomes arrested in the storming stage, members are unable to express the hostilities that develop naturally among persons joined in a common task. Therefore, the group will be unable to set behavior rules during the norming stage, because unexpressed tensions block agreement about desired member behavior. When a group becomes arrested in the norming state, members cannot decide what type of behavior will promote group success. Therefore, the group will be incapable of teamwork during the performing stage, because each member

MEMO CAPSULE

Stages of Group Development

- **Forming:** getting acquainted with members and task
- **Storming:** Challenging others for power, recognition
- **Norming:** Establishing rules for cooperative action
- **Performing:** Uniting to solve problems, execute task
- **Adjourning:** Withdrawing psychologically from group, task

will play by a different set of rules (Napier and Gershenfeld, 1985).

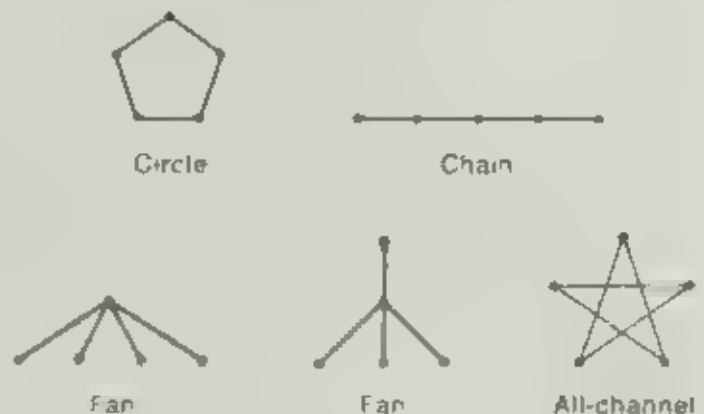
Communication Network

Another factor that influences group communication is the configuration of the communication network that links members together. A network is a system of lines or channels that cross at regular intervals. A communication network is the system of communication channels that determines the direction of message flow among group members. A communication network may be intentionally constructed or develop as a result of chance. A nursing department's table of organization creates a formal communication network, because it specifies the persons with whom each worker communicates regarding work responsibilities. The voluntary seating arrangement of Procedure Committee members who habitually assume the same chairs around a meeting table will produce a chance-related communication network, because the pattern of message flow is set by members' initial seating choices.

Formal organizational structures of different agencies vary considerably. Some have a narrow and deep hierarchy; others have a broad and flat structure. Therefore, the formal communication network in each agency and unit is unique. The manager who transfers from one

agency to another, or one division to another in the same agency must study the configuration of the new network, because managerial effectiveness depends on the skillful use of the communication net. A manager who helps to restructure a nursing department or division should consider the long-range effects of different organizational structures. Research indicates that communication network characteristics influence employee productivity and satisfaction. Furthermore, the location of each worker in the net determines the number and nature of his communications to others. Studies by Bavelas (1951) suggest that relative differences in interpersonal distance foster communication from certain network positions and discourage communication from others.

Researchers have studied laboratory work groups arranged in circle, chain, fan-shaped, and all-channel networks:



It is possible to compute the total interpersonal distance for a network position by determining the total number of communication links from that position to all others in the net. These total interpersonal distances can be summed to reveal a grand total of interpersonal distance for the network. The relative centrality of a person in a net is computed by dividing the grand total of all interpersonal distances for the network by total interpersonal distance for that individual. Studies show that for the networks depicted in the graph, the person occupying the

most central position—that connected to all other positions by the fewest links—is likely to emerge as group leader. Individuals in most peripheral or least central positions have the lowest morale (Bavelas, 1951).

Circle and all-channel networks are used in discussion groups, “knee groups” (persons sitting in a circle with chairs so close together that their knees touch), and brainstorming groups. Because leadership shifts rapidly in such groups, they demonstrate little centrality. The chain network may develop in a committee with a *laissez-faire* chairperson, and individuals at the ends of the chain suffer from the lack of centrality. The fan network is found at several levels of nursing department hierarchy, and morale is higher for more central figures. All-channel networks develop in groups assigned to a complex task (Webber et al., 1985).

The shape of a communication network determines the number and nature of messages sent by members at various positions in the net. Network shape influences a group’s speed of organizing and skill in problem solving. In studying ring, chain, Y, and wheel networks, Leavitt (1951) found group organization most rapid in wheel networks and progressively slower from wheel to Y to chain to ring networks. Wheel and Y networks showed the greatest stability. Once established, these groups remained unchanged through later trials. During analytical problem solving, the lowest error rates occurred in Y nets, intermediate error rates in chains, and highest error rates in circles.

Albrecht et al. (1987) claim that persons are supported through weak links as well as strong links in their supportive network. Strong links are those with family and close friends; weak links are those with more distant acquaintances and persons who become familiar through limited encounters in the course of everyday life. According to Albrecht et al., Americans idealize intimacy, so underestimate the support available from impersonal relations with semi-strangers. These impersonal relations or weak links are limited in time, place, scope, and depth.

For example, interchange with a weak link may extend over minutes or hours, but not weeks or years. Some weak link interactions, such as talking with a teller only at the bank window, talking with a waitress only in the corner restaurant, occur at one site. Weak links are valuable, because they provide support when strong links are disrupted (death of a spouse), widen one’s access to information and services, permit social comparisons with dissimilar others, permit low-risk discussions of high-risk topics, and allow one to experiment with new behaviors and roles. An enterprising nurse manager can expand her knowledge of community health needs by talking with a high school principal, identify reasons for cutbacks in health personnel through conversations with a banker or broker, compare her or his own computer skills with those of the local librarian, and ventilate concern about subordinates’ substance abuse to the family physician. It may also be wiser to discuss worries about job security with a nurse from another agency who attends the same church than with a supervisor or coworker in one’s own agency.

ANALYSIS OF GROUP INTERACTION

Bales and Slater (1955) developed a method for analyzing group interaction by classifying each communication message into one of 12 categories:

1. Shows solidarity, raises another’s status, gives help or reward.
2. Shows tension release, jokes, laughs, shows satisfaction.
3. Agrees, shows passive acceptance, understands, concurs, complies.
4. Gives suggestions, directions, implying autonomy of other.
5. Gives opinion, evaluation, analysis, expresses feeling or wish.
6. Gives orientation, information, repeats, clarifies, confirms.
7. Asks for orientation, information, repetition, confirmation.

8. Asks for opinion, evaluation, analysis, expression of feeling.
9. Asks for suggestion, direction, possible ways of action.
10. Disagrees, shows passive rejection, formality, withholds help
11. Shows tension, asks for help, withdraws from field.
12. Shows antagonism, deflates another's status, defends or asserts self.

Using this classification to study problem-solving groups, Bales and Slater learned that behavior in categories 4, 5, and 6 (problem-solving behaviors) account for one-half of all communication messages. Questions (categories 7, 8, and 9), positive reactions (categories 1, 2, and 3), and negative reactions (categories 10, 11, and 12) account for the other half.

MEMO CAPSULE

Functional Specialization within Groups

- Problem solving: Ask or give information, opinion, suggestion
- Questions: Ask for information, opinion
- Positive reactions: Help others, agree, joke, laugh
- Negative reactions: Disagree, antagonize others, withdraw

MANAGERIAL APPLICATIONS OF GROUP DYNAMICS THEORY

Nurse managers should apply principles of group communication when designing work groups, appointing committee members, chairing work groups, and serving as group member.

In designing a goal-oriented group, the manager should weigh the effect of group size against the need for representativeness, because consensus is difficult to achieve in a group larger than 10 or 12. In appointing workers to com-

mittees, the manager should anticipate the likely effects of each member's position status on the number and type of her or his communications in the group. By exercising these cautions, the manager can seed each group with persons who possess the skills needed for idea generator, critic, problem solver, and supporter roles.

When chairing a group, the manager should observe the effects of the seating arrangements on communication patterns and alter members' positions when a change is needed to improve problem solving. When serving as group leader, the manager should occasionally use the Bales and Slater method or another one to classify communications into task and group-maintenance categories to determine which message type should be further encouraged. To increase personal effectiveness as group participant, the manager should practice making any task-type or group-type messages with which he or she is uncomfortable. Practice in a "safe" group will increase the manager's repertoire of group skills and improve his or her eligibility for leadership of important committees or task forces.

PROFESSIONAL NETWORKING

A network is a far-flung informal group that develops when persons with similar interests unite for information sharing and mutual power building. There are four types of networks from which managers can benefit: business, social, support, and professional (Persons and Wieck, 1986).

According to Christy (1987), successful networking requires a sizeable commitment of time and conscientious attention to "network etiquette" rules, which include generous sharing of information with selected persons in the net; scrupulous honesty in dealing with other network members; periodic reporting to members about one's professional and social progress (to acknowledge assistance obtained from another member and signal one's potential usefulness to others). Because persons with whom a nurse manager might wish to connect are outside her or his own agency, the manager should use

professional meetings, speaking engagements, social events, and political activities to contact potentially supportive individuals. Although the manager can expand his or her

professional network through such outreach activities, etiquette demands that he or she introduce other network members to these new contacts.

• MEMO CAPSULE •

Network Etiquette

- Volunteer information to network members.
- Complete honesty in dealing with network members.
- Periodically report personal activities and progress.
- Acknowledge help from other network members.
- Introduce other members to own new contacts.

SUMMARY

The nurse manager's challenge is to accomplish work with and through others. The multitaceted nature of patient care requires that much nursing care be planned, provided, and evaluated by groups rather than by individuals. Because nursing employees vary in age, cultural background, educational preparation, and work experience, the manager should assist diverse workers in organizing their work efforts. Several leadership and follower roles must be fulfilled for employees to interact comfortably and effectively. A manager can help subordi-

RESEARCH BRIEF

Effect of Team-Building Efforts

Purpose: Determine the effectiveness of team-building efforts with a core group of multidisciplinary health personnel.

Sample: Head nurses, paraprofessional supervisors, medical interns and residents, and administrative nursing supervisor on a general medical unit.

Method: During the first team-building meeting, participants used a four-item, six-point scale to evaluate the medical unit on four elements of team effectiveness: (1) goals; (2) roles; (3) relationships; (4) work procedures. Scores were summarized, posted, and discussed by the group. The consultants facilitated a 30-minute brainstorm session where participants identified 12 issues of concern, then selected two problem areas to be addressed by task force members. (1, lack of coordination and understanding of others' roles, and (2) poor understanding of how to solve organizational problems. Two months after the last team-building meeting, the

four item survey of team effectiveness was again completed by participants. A 12-item survey of organization effectiveness, with items reflecting the 12 concerns identified in the first team-building meeting, was completed by all personnel assigned to the medical unit during the intervention period. Personnel were asked to evaluate the 12 factors for the present and for three months before the team-building activities.

Application: The investigator concluded that trained facilitators, rather than agency insiders, should design team-building activities for health professionals. Outside experts are more effective than insiders in mediating interdisciplinary conflict. The Perception Exchange Exercise (each profession tells the others how they are perceived and what assistance is wanted from them) is an effective "ice breaker" when facilitated by an external consultant and handled with tact and sensitivity.

Source: Horan, B., Gorman, C., Knight, C., and Kweder, S. Building a team on a medical floor. *Health Care Management Review* 16(2), 65-71, 1991.

nates to learn key group roles by modeling behaviors required in each role as she or he interacts with others in goal-oriented groups.

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Communication

*Six honest serving men taught me all I knew: Where
and What and When and Why and How and Who.*

RUDYARD KIPPLIN

OBJECTIVES

After reading this chapter, you should be able to.

- 1 Diagram the direction of your verbal and nonverbal interpersonal messages to others during the course of a committee meeting.
- 2 While observing two employees during a heated interchange, diagram several of their interpersonal communications to reveal which verbal transactions were parallel and which were crossed.

The nurse manager can achieve work goals only by working through others. Therefore, she or he must be able to communicate ideas, opinions, requests, and directions effectively to coworkers. Effective communication consists of transmitting an accurate message to the proper recipient at the appropriate time in a manner that conserves the sender's and receiver's energy, followed by checking to ensure that the intended message was received.

David Berlo (1960) proposed a linear model of communication in which each communication act contains the following elements: source, message, channel, and receiver. Berlo claimed that the quality of communication is determined

by characteristics of these four elements. The source or initiator characteristics that influence effectiveness are communication skill, knowledge, attitudes, and cultural background. The message characteristics that determine effectiveness are structure, content, code, and treatment. Of the following channels, one may be more effective than another for a particular communication: sight, hearing, touch, taste, and smell. Receiver characteristics that influence effectiveness are communication skills, knowledge, attitudes, and cultural background. Berlo's model of the communication process was diagrammed as a linear, unidirectional process:

Sender → Message → Channel → Receiver



However, Drucker (1974) argued that the receiver is the most important element in the foregoing four-step communication process, because true communication requires a sharing of experience between message sender and receiver.

Shannon and Weaver (1949) developed a circular model of the communication process that included the four elements, plus three additional ones: signal, noise, and feedback. Signals are signs that symbolize message meaning. Signals must be accurately encoded by the sender and accurately decoded by the receiver for effective communication to occur. Noise is any stimulus coming within a channel that interferes with the signal sought by the receiver (Klapp, 1986). Feedback is the relay of information from a later to earlier stage in the communication process for the purpose of refining the message, eliminating noise, or increasing the shared experience of sender and receiver. The circular model of communication can be diagrammed as shown above.

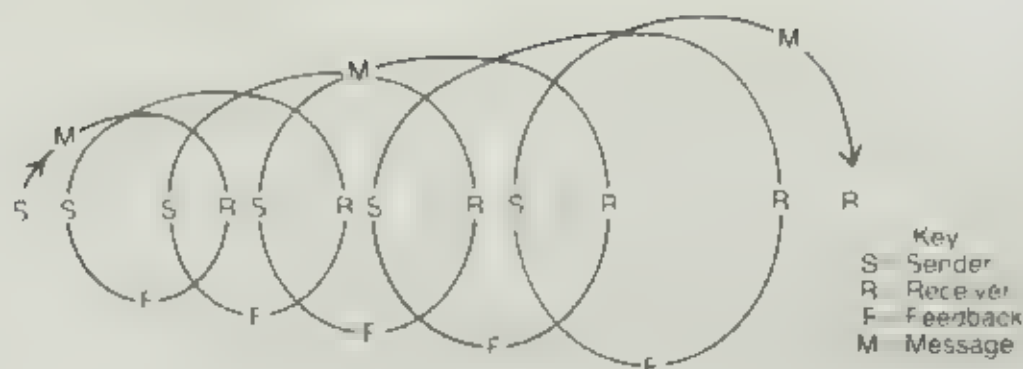
Fritz et al. (1984) stated that communication climate may facilitate or inhibit communication. Climate variables that influence message transmission (determine the amount of "noise" in the process) are trust between sender and receiver, message ambiguity, sender's and receiver's valuing of each other, emotional separation between sender and receiver, sender's empathy for receiver's perceptions, threat perceived by sender or receiver, and fixed views of sender and receiver. Low trust, high ambiguity, failure to value, lack of emotional separation, lack of em-

pathy, high threat, and strong views produce defensiveness in the sender or receiver. Because defensiveness distracts from careful listening, confusion, misunderstanding, and communication breakdown are apt to occur.

Dance (1967) proposed a helical model of communication. The linear model is correct in suggesting that once an interpersonal message has been sent, it cannot be recalled. However, the linear model does not account for the fact that content and process of an earlier message can influence later communications between the same two individuals. The circular model suggests that earlier messages shape and color later messages but incorrectly suggests that each communication act returns the individual full circle to the original starting point. The helical, or spiral, model of communication retains the advantages of both models by showing how the communication process moves understanding forward while incorporating the effects of earlier communications. The helical model of the communication process can be diagrammed as shown at the top of the next page.

Dance's model emphasizes that successful message encoding and transmission at each stage of the process enlarges understanding of the receiver, thereby enhancing his ability to effectively encode and transmit a complementary message.

Although these communication models oversimplify the complexities of manager-employee communication, they illustrate key principles for effective communication of work-related information.



First, communication is a process, rather than a single event. Thus memo information about a new nursing policy is immediately incorporated by the employee into her or his fund of previously acquired information on the same topic. Symbols embodied in each oral or written message are interpreted in light of the receiver's previous experience with those symbols, whether used by the same or different senders. Furthermore, effective communication is a two-way process. One-way communication is simply the direction of information toward another, without regard for its reception or interpretation (McConnell, 1989). Lack of time often pushes the nurse manager toward one-way communication. However, there is only temporary time saving through one-way transmission of orders and operating information. Subordinates invariably misunderstand some part of the information sent them. Without feedback from subordinate message receivers, a manager cannot correct misunderstood message units in time to prevent work errors and omissions. The time needed to correct resulting work problems exceeds that saved in one-way communication.

Second, the communication process is frequently impaired by "noise" (unintended additions, distortions, or deletions of message content), a problem that can be eliminated by feedback, which clarifies the receiver's perceptions of transmitted symbols. Perception of threat by the sender or receiver can also impair message encoding and decoding, so that erroneous information is transmitted and significant inter-

mation is misinterpreted. The manager can reduce employee defensiveness by structuring communications so as to eliminate negative valuations, threat, and attempts to delude during message transmission and by soliciting feedback (Fritz et al., 1984).

MEMO CAPSULE

Communication Elements

- **Sender:** Person who initiates and transmits message.
- **Message:** Information, opinion, affect that are directed to a target.
- **Signal:** Signs that symbolize message content.
- **Channel:** Route through which a message is transmitted.
- **Receiver:** Intended perceiver, interpreter of message.
- **Noise:** Stimulus that blocks signal transmission.
- **Feedback:** Information relayed from later to earlier stage.

Third, communication is intrapersonal as well as interpersonal. The sender's motivation in transmitting a message and the receiver's mind-set in interpreting the message are conditioned by a continuous stream of "self-talk," a process through which the person's trust in the other's intentions, her or his feeling of being valued, and fixed views on the target subject acquired from previous experience are taken

into account. The manager can detect intrapersonal messages that insulate an employee from manager-initiated messages by asking workers' opinions about controversial work issues.

Fourth, communication is nonverbal as well as verbal. The principal motive for sender and receiver to communicate with each other is their mutual need to impose meaning on life events. Words are imperfect symbols of external reality, because they represent referent objects or ideas inexactly. To compensate for the inadequacy of verbal message information, people unconsciously use facial expression, gesture, touch, and vocal tone to amplify the meaning of spoken communications. Body language is largely unconscious, so that persons are less able to censor their nonverbal than verbal messages. Consequently, people learn to interpret a mixed message (one in which verbal and nonverbal component are contradictory) by discounting the verbal content and crediting the nonverbal content of the message (Duldt et al., 1984; Riccardi and Kurtz, 1983).

MEMO CAPSULE

Nonverbal Communications

- Gesture
- Posture
- Facial expression
- Bodily movement
- Position relative to other
- Clothing
- Grooming
- Accoutrements

According to Levson and Guy (1989), several social-psychological factors impair message transmission, even between willing and well-meaning communicators. Among them are:

1. *Homophily*: People communicate more frequently with those others who are seen

as similar to themselves (in age, race, social status) than with those seen as different.

2. *Chain of command*: In most health care agencies formal or informal sanctions are imposed for circumventing the official chain of command, so that employees are reluctant to discuss problems with high-level administrators or with employees in other divisions.
3. *Frame of reference*: No two employees have identical educational and employment backgrounds, so that each employee is receptive to selected aspects of a complex communication and ignores other aspects. Where interests are extremely disparate, two would-be communicators may have difficulty in sending or receiving information of interest to the other.
4. *Self-preservation*: Institutional survivors learn to filter and distort information so as to protect personal security, esteem, and power. Therefore, favorable information about work processes and outcomes is transmitted freely up, down, and laterally through the organization, but negative information about errors, losses, and dissatisfactions is muffled, distorted, or buried by those most threatened by it.
5. *Crisis*: Confusion, excitement, and conflict increase the likelihood of message distortion because of employee stress and fatigue. When needed work-related information is not supplied through official channels by agency administrators, rumors spread through the informal grapevine to provide partial, often misleading, information to anxious employees. The combination of fear, doubt, suspicion, and misinformation blocks message transmission, reception, and interpretation. In addition, overconcern about interpersonal relations may cause a manager to be ambiguous and indirect when communicating work expectations to subordinates (Zalesnik, 1989).

MEMO CAPSULE

Communication Blockers

- Homophily: Communicate most with persons similar to self
- Chain of command: The message is altered with each interchange.
- Frame of reference: Perceive some messages, ignore others.
- Self-preservation: Distort information for self protection.
- Crisis: Excitement and anxiety produce message confusion.

When more than two persons attempt to communicate, transmission can be blocked at several points in the process. Hence, misunderstandings are even more common in group communication than in dyadic communication. The larger the group, the more likely it is that members will differ in vocabulary, frame of reference, goals, status, power, and cultural background. In order for several individuals to subordinate personal interests to a common goal and organize for productive group effort, all must contribute to effective communication of feelings and ideas.

Tuckman (1965) described the group communication process as consisting of four stages: forming, storming, norming, and performing. In the forming stage, members communicate to decide who is to lead the group and what tasks the group is to accomplish. In the storming stage, conflict develops, as members discuss what work rule will govern them and which member will be responsible for each task. In the norming stage, members achieve cohesion and relief at overcoming their earlier conflict. In the performing stage, members carry out their assigned tasks while communicating commitment to group goals and to one another.

A manager who can recognize the characteristics of each stage of group development can more effectively shepherd a committee through

a difficult assignment than a manager without such awareness. The manager who understands that a group's floundering during the forming stage will soon shift to carping (storming stage), then discussion (norming stage), and then cooperation (performing stage) can better facilitate group process and dissuade members from abandoning group goals during periods of slow progress.

Communication issues have far-reaching consequences for nursing unit operations. Studies have indicated that positive perceptions of communications foster nurses' job satisfaction and work performance (Anderson and Level, 1980; Jain, 1973; Sims and Szilagyi, 1975). Studies by Downs and Hazen (1977) revealed that worker satisfaction with communication was multidimensional, including satisfaction with overall communication climate, supervisor's openness to communication, quality of communication media, horizontal communication with peers, information useful in integrating one's job with the total organization, feedback on personal performance, information contributing to total organization perspective, and quality of downward communication. In a study by Pincus (1986), nurses' communications with immediate superiors and with top-level executives had strong effects on their job satisfaction and weak effects on their productivity. Pincus recommended that top nurse executives establish formal, ongoing communication programs with caregivers, to include both written and conversational media; and that first-level nurse managers receive advanced training in small group and interpersonal communication strategies to facilitate interaction with caregivers in quality circles and rap sessions.

COMMUNICATION PRINCIPLES

The nurse manager should use some of the principles of classic communication theory (Berelson and Steiner, 1964) to improve information exchange with coworkers. The following principles are useful in determining the content and media of the managers' writ-

ten and spoken communications with caregivers:

1. Workers tend to see and hear messages that are compatible with their expectations and predispositions.
2. Workers who read about a topic are more inclined to listen to a message on the same topic.
3. The effectiveness of different media varies with the worker's educational level. The higher the education, the greater the reliance on print. The lower the education, the greater the reliance on aural and pictorial media.
4. The more trustworthy or prestigious the communicator, the less manipulative he is considered to be by message receivers.
5. Majority opinion is more effective in changing worker attitudes than expert opinion.
6. Communication of facts is usually ineffective in changing opinions against a worker's strong disposition.
7. Workers with low self-esteem are more likely to be influenced by persuasive communication than those with high self-esteem.

For example, according to these principles, when informing the unit's nursing personnel of a forthcoming change from primary nursing to nursing case management, the head nurse should distribute an article about nursing case management to registered nurses and distribute a diagram contrasting the features of primary nursing and case management to technical and ancillary workers before meeting with the staff to discuss the change. The head nurse should present research findings and productivity reports (patient length of stay, patient recidivism rates) to motivate registered nurses and use persuasive appeals to motivate technical or ancillary staff to accept the proposed change. In staff meetings where the change is discussed, the head nurse should invite subordinates to freely express their objections to a change in care-deliv-

ery method and then encourage the total group to refute as many as possible of these objections. Finally, the head nurse should arrange for the work group's most credible informal leader (perhaps the clinical nurse specialist) to propose that nursing case management be implemented.

THEORY OF TRANSACTIONAL ANALYSIS

Transactional analysis is a rational approach to understanding human behavior that developed from the psychological theories of Eric Berne. Berne's (1972) theories include structural analysis, the study of the individual's three ego states; transactional analysis, the study of interpersonal interaction patterns; game analysis, the study of stereotyped interpersonal transaction that create bad feelings; and script analysis, the study of predetermined life patterns and unconscious motivation for behavior.

Techniques of transactional analysis have been used to categorize, understand, predict, and alter behavior of sick and well persons. As a therapeutic intervention, transactional analysis investigates ways in which people structure time so as to obtain recognition from others. Unlike psychoanalysis, transactional analysis assumes that a person can analyze his or her own problems and can learn to express feelings honestly in a group situation. We focus here on interpersonal interaction patterns.

Interpersonal Transactions

According to Berne, each person engages in transactions with others to obtain "strokes." A transaction consists of some sort of stimulus by one person, followed by some sort of response by another. A stroke is a positive or negative unit of recognition between people: a word, phrase, gesture, or facial expression. The following are positive strokes: a smile, pleasant greeting, compliment, pat on the back, letter of commendation, or pay raise. Some examples of negative strokes are: a frown, insult, reprimand, shove, or disciplinary letter.

To maintain an adequate self-image and

function effectively in society, an individual needs to receive many strokes or recognition units daily. Positive strokes are preferable to negative strokes because they produce good feelings. However, a person who receives few positive strokes will seek negative strokes in order to obtain adequate recognition.

The interpersonal transaction is the basic unit of social functioning. Therefore, a person can often improve his or her social performance by modifying his or her transactional style. When two people encounter each other, it is usual for one to acknowledge the other's presence and that other to respond to the acknowledgement in some manner. This response then serves as a stimulus, producing a cascade of transactions in which messages pass back and forth between the parties, causing reciprocal ego changes. Transactional analysis enables an observer (or actor) to determine which aspect of the personality (Parent, Adult, or Child, see the section Structural Analysis below) is operative in the stimulus and response limb of each transaction.

Types of interpersonal transactions

Persons engage in the following types of transactions to satisfy stroke hunger and structure time: withdrawal, rituals, activities, pastimes, games, and intimacy. Through withdrawal the individual removes himself from transactions with others. When withdrawal is temporary, as in daydreaming, the effect is harmless. When profound psychological pain causes a person to withdraw permanently from others, psychological health is impaired.

A ritual is a socially programmed performance by several persons in which each regulates his or her involvement with the group. Some common rituals are church services, cocktail parties, club meetings, birthday celebrations, and perfunctory sexual performances.

An activity is a common, comfortable, and utilitarian method of structuring time through a project that deals with external reality. An activity is usually productive and personally satisfying to the actor but prevents intimate in-

volvement with others. Common activities are attending business meetings, cooking meals, paying bills, washing clothes, mowing the lawn, or writing term papers.

A pastime is a straightforward, semiritualistic, complementary transaction that relates to a single theme and structures time for a specified interval. Pastimes are often used at social gatherings or during the waiting period that precedes a formal meeting. Pastimes consist of fairly straightforward relations and are often used to probe another's personality in preparation for establishing friendship. According to Berne (1964), the following pastimes are commonly employed in social gatherings: Kitchen, Wardrobe, PTA (women's pastimes); General Motors, How To, Who Won? (men's pastimes); Ever Been To?, Whatever Became Of?, The Morning After (pastimes for mixed company). According to Harris (1969), people who cannot engage in pastimes at will are not socially facile, but relationships that do not progress beyond engaging in pastimes will deteriorate and die.

A game is an ongoing series of apparently plausible transactions that occurs because of ulterior motives, progresses to predictable outcome, and produces disagreeable feelings. Games differ from rituals, activities, and pastimes in having hidden motivation and a payoff that is the primary motive for engagement. Games are used to achieve temporary relief from the "Not OK" position of the child relative to his parents. Although a game's payoff reinforces the protagonist's "Not OK" position relative to others, maintenance of that fixed position provides the "Not OK" person some security in an uncertain world (see the section Life Position below).

"Now I've got you, you son of a bitch" is an example of a negative game that an inept manager sometimes plays on a hapless subordinate to alleviate the manager's feelings of inadequacy and guilt. The game consists of one person (the manager) setting up another (the subordinate) so as to entrap him, accuse him, and punish him (figuratively announcing "Now I've got you,

you son of a bitch!"). Payoff for this game is mood improvement for the manager, mood deterioration for the subordinate.

Head nurse: "Where's the summary of this month's monitoring of quality indicators? Today's the thirtieth and the summary is due at the end of each month."

Staff nurse: "I was sick for two days at the beginning of the week and haven't had time to collect the monitoring reports from PM and night shift nurses."

Head nurse: "This is a good example of the way that your excessive use of sick time interferes with the work of other staff members and damages the unit's reputation."

Staff nurse (defensively): "The monitors are supposed to turn in their checksheets to me. I shouldn't have to ask each monitor for her report. If the monitoring reports had been in my mailbox when I came on duty yesterday, I could have handed in the summary today."

Head nurse (triumphantly): "But I've told you again and again, the other nurses resent your frequent absences. *That's* the reason they make you ask for the monitoring reports!"

Berne claims that people have little opportunity for real intimacy, so that most of the time devoted to social life is spent in game playing. A game can be constructive or destructive, and both types have a life-stabilizing effect. A game promotes biological stability through the stroking that occurs during interchange. A game promotes psychological stability by confirming the person's basic life position. "Happy to Help" and "Homely Sage" are good games, because the game's social outcome outweighs the protagonist's hidden motivation and payoff. "Alcoholic," "Kick Me," and "Now I've Got You, You Son of a Bitch" are bad games, because they block communication, erode self-image, and injure innocent bystanders. "Ain't It Awful" and "Why Don't You, Yes, But" are fairly innocuous games with no serious consequences that are used to structure time while avoiding intimacy. Berne (1972) defines bilateral intimacy as a candid, game-free relationship in

MEMO CAPSULE

Interpersonal Transactions

- **Withdrawal:** Temporary or continuing escape from stress
- **Ritual:** Programmed activity that regulates involvement
- **Pastime:** Complementary transaction to structure time
- **Game:** Apparently plausible transaction, negative motive
- **Intimacy:** Mutual self-revelation, understanding, acceptance

which both parties give and receive freely without exploiting the other.

Structural Analysis

The basis of transactional analysis is structural analysis, which derives from Berne's theory that the personality consists of three ego states (modes of relating): Parent state, Adult state, and Child state. In the Parent state, the person thinks and acts as his or her parents did in their treatment of him or her as a child. The Parent state can be differentiated into Nurturing Parent, who is encouraging, protective, and supportive; and Judgmental Parent, who is critical, controlling, and punishing.

In the Adult state, the person behaves in objective-rational fashion, much like a computer, and is concerned with figuring things out on the basis of facts while avoiding judgments and feelings.

In the Child state, the individual is motivated by feelings and needs that he experienced between 3 and 6 years of age. The Child state includes the Natural Child, characterized by spontaneity, curiosity, creativity, and joy, and the Adapted Child, whose behavior is modified by parental influence, often compliant, withdrawing, or whining (Bennett, 1976). Each person is capable of functioning in the Child or Parent ego state, because the brain records in

chronological sequence and detail all life events, together with the feelings provoked by each event. In childhood the individual is comparatively helpless against the power and control wielded by his or her parents, and these events create especially powerful memories. Later in life, when events resemble a childhood experience, the remembered event, with its associated feelings, can be reactivated so as to "hook" the Child or Parent ego state, thereby controlling interpersonal relations in the present (Harris and Harris, 1985). Of the three ego states, only the Adult state is consciously selected.

In a healthy person the three ego states operate in complementary fashion. In a neurotic or psychotic person, ego states are imbalanced in that one state is overdeveloped and another underdeveloped.

Through transactional analysis a person can learn to explore feelings and use verbal, tonal, positional, and postural cues to identify the ego state from which he or she (or a companion) is operating. For example, in the Parent state, a person often uses such words as "should," "ought," "must," and "don't" and such phrases as "What now?" and "Once and for all!" In the Adult state, a person often uses such words as "probable" and "possible" and such phrases as "I think" and "I see." In the Child state, a person often uses such words as "Wow!" and "Yuk!" and such phrases as "I want" and "I don't care." A dogmatic and authoritarian tone indicates the Parent state, a whining tone indicates the Child state, and a matter-of-fact tone indicates the Adult state.

Physical clues to the Parent state include frowning, pursing the lips, placing hands on the hips, and pointing the index finger. Physical cues to the Adult state include facing another straightforward, tilting the head slightly while listening, and blinking the eyes every three to five seconds. Physical cues to the Child state include giggling, crying, pouting, nailbiting, and squirming.

During communication with another, an in-

dividual may shift back and forth from one ego state to another. As a change of posture or facial expression usually accompanies a change in ego state, an alert observer can use such cues to determine complementarity of stimulus-response lines between communicants.

Typical Parent state feelings are sensations of superiority, disapproval, or impatience. Typical Child state feelings are joy, sorrow, guilt, and fear. The Adult state is characterized by the absence of feeling.

The Parent state is associated with criticism, direction, and judgments of right and wrong. The Internal Parent is protective, because it guards the person against dangers that, if directly experienced, could cause serious injury. The Internal Parent also frees the Adult state for productive effort by decreasing the need for trivial decision making about everyday activities. The Nurturing Parent state regards the Child state with love and concern. The Child state is associated with intuition, creativity, and spontaneity. The Natural Child is playful and joyful. The Adapted Child is compliant and yielding to internalized parental controls. The Adult state examines the appropriateness of data in Parent and Child states, converts stimuli to information, computes probability of events, and satisfies the Child state's needs appropriately.

In every social situation, one of a person's three ego states predominates. The ego state of the initiator of a transactional stimulus is partially responsible for the ego state of the responder.

Laws Governing Interpersonal Transactions

An interpersonal transaction consists of an exchange of words and behavior between two persons. A transaction may be complementary, crossed, or duplex. Certain laws determine which ego state a person will assume during a human transaction. It is customary to diagram the three ego states of two transacting persons in the following way:



When the stimulus and response lines on a PAC transactional diagram run parallel to each other, the transaction is *complementary* and can proceed indefinitely (Harris, 1969). (See the diagram at the bottom of the page.)

Communication is facilitated when a person assumes the ego state expected of him or her or by the other person in the transaction. When stimulus and response lines *cross* on the PAC transactional diagram for two successive interchanges, communications are likely to break down (Harris and Harris, 1985). When the ulterior or hidden message in a transaction is different from the overt message (*duplex* communication), the transaction will progress in accord with the hidden message (Bennett, 1976). In a single communication, it is possible to transmit messages on two levels simultaneously. For example, an apparently Adult message from administrator to head nurse—"I called at one o'clock to check on the schedule, but the clerk said you weren't back from lunch."—may carry a hidden Parent-Child message—"I see you've overstayed your scheduled meal break again!"

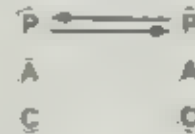
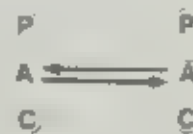
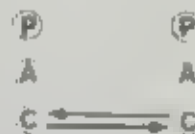
In human transactions, the most significant decisions are usually made in the unconscious Parent or Child states, instead of the conscious Adult state (Wagner, 1972). Complementary transactions satisfy, because they provide positive strokes to both participants. Those who suffer stroke deprivation often engage in psychological games to obtain needed strokes. When positive strokes are not forthcoming, a person will seek negative strokes, since they

have equal survival value and can be more easily obtained (Babcock, 1976). The negative feelings acquired in conjunction with negative strokes will eventually be discharged against the negative stroke giver or a satisfactory surrogate.

Life Positions

According to Harris, each person relates to others from one of four life positions (Harris, 1969).

1. I'm Not OK; You're OK. This position results from the inferior position of the child relative to his parents and negative feelings experienced during the parents' efforts to civilize him or her. A person who retains this inferior position throughout life engages in game playing to obtain strokes and maintain security by continually reaffirming his or her Not OK position relative to others.
2. I'm Not OK; You're Not OK. This position results when the Not OK child is abandoned by a cold and uncaring parent during the second year of life. The lack of stroking that produces this life position interferes with development of the Adult state, so the person's hold on reality is tenuous.
3. I'm OK; You're Not OK. This life position develops in the child who is brutalized by his or her parents and survives. The person believes that he can be OK if his or her parents will only leave him or her alone. A person operating from this position has an internal Parent who permits him or her to treat others cruelly, that is, has psychopathic tendencies.
4. I'm OK; You're OK. Of all four life positions, this is the only one that is con-



sciously selected. The first three are unconsciously determined by childhood experiences. As indicated, the infant's helpless condition produces the I'm Not OK-You're OK position in everyone. An uncaring or a brutal parent converts the child to the second or third life position respectively. Once a child has selected a life position, he or she operates from that position throughout life, unless he or she consciously adopts the fourth life position. Transactional analysis enables a person to identify the ego state from which he or she habitually initiates and receives communications and motivates him or her to adopt the I'm OK-You're OK position.

MEMO CAPSULE

Life Positions

- I'm not OK; You're OK: One down in relation to others
- I'm not OK; You're not OK: No pride, no esteem, no hope
- I'm OK; You're not OK: I win, you lose
- I'm OK, You're OK: This relationship could benefit both sides

MANAGEMENT APPLICATIONS FOR TRANSACTIONAL ANALYSIS

Transactional analysis can help a nurse manager to lead and control subordinates. By definition, a manager achieves work objectives through the efforts of others. Therefore, an effective manager is one who communicates clearly and powerfully enough to move others to desired actions. Because complementary communications can proceed indefinitely and crossed communications break down quickly, a manager should adjust her or his personal ego state to ensure complementary transactions with those supervised. In selecting the appro-

priate ego state from which to approach each management activity, the manager should understand that Child-Child transactions are enjoyable, Parent-Parent transactions permit a fairly satisfying game of "Ain't it awful!" but Adult-Adult transactions accomplish the most work. Furthermore, Nurturing Parent-Child interchanges motivate employees more powerfully than Critical Parent-Child transactions.

The origin of all Child and Parent responses is the Not OK position in which each person begins life. Therefore, when stress exacerbates feelings of helplessness in either manager or subordinate and the person is faced with equally undesirable alternatives, the Child state is activated. When feelings of inadequacy develop in an area where the person has stored unexamined parental admonitions and rules, the Critical Parent is activated. Whether responding as Child or Parent, the person whose behavior is dominated by Not OK feelings is unable to deal appropriately with present reality, because transactions are burdened with unfinished business from the past.

Traditional methods of nursing education predispose to transactional problems. Some pre-professional programs overemphasize a need for efficiency to the point that the Adult state is overdeveloped. Other programs so overemphasize the protective function of nursing that the Parent state becomes overdeveloped. A nurse with an exaggerated Parent state is predisposed toward the Professional Rescuer role in the classic game of "Alcoholic."

The game of "Alcoholic" requires three players: alcoholic, instigator, and rescuer. The instigator (family member, acquaintance, bartender) provides the alcoholic beverage or the justification for the addicted individual to drink. The alcoholic imbibes excess alcohol to the point that he loses inhibitions, behaves unwisely, alienates family, friends, and employer, and comes into difficulty with police. The rescuer attributes the alcoholic's inappropriate, self-destructive behavior to a genetically determined physiological defect over which the al-

coholic is powerless. Then the rescuer "forgives" the alcoholic for social gaffes and property damage that resulted from his drunkenness and undertakes to rescue the alcoholic from the disability that fate has imposed on him.

Few preprofessional programs encourage the student nurse to attend to her or his own needs and feelings, so that the student's Child state is neglected. Nurses whose exaggerated Adult or Parent state overshadow needs of the Child state are subject to severe stroke hunger. As explained, prolonged stroke hunger encourages game playing, because a predictable supply of negative strokes is preferred to total absence of stroking.

Nurse managers often develop transactional problems with subordinates, because the hierarchical structure typical of many health agencies encourages supervisors to assume an authoritarian role (Parent state) and staff nurses to assume a subservient role (Child state). However, both supervisor and staff nurse are expected to cooperate in problem solving (Adult-Adult transactions), so that the situation is ripe for crossed communications and resulting bad feelings.

Nurses often experience transactional problems with physicians. In American society physicians have higher social status and greater personal authority than nurses. Consequently, there is a tendency for physicians to address nurses in a controlling or critical manner (Parent state) and for nurses to respond in a petulant, self-excusing, or deferent manner (Child state).

Nurses may experience transactional difficulties with patients if they fail to shift ego states to maintain complementarity as the patient's ego state changes with alterations in physical condition. At the onset of acute illness a patient usually adopts the Fearful Child state. At this point it would be appropriate for a nurse to assume the Nurturing Parent state to support and comfort the patient's Child state. During convalescence, a patient must shift from the Child to Adult state to resume responsibility for self-care. To maintain complementary transac-

tions at this point, a nurse should shift from the Nurturing Parent to Adult state in interactions with the patient.

Knowledge of transactional analysis enables a manager to modify coworkers' behavior to improve communication and increase productivity. An individual has less difficulty remaining in the Adult state when the stroke needs of the Child state are satisfied (Babcock, 1976). Therefore, a manager can increase an employee's problem-solving ability (Adult state) by assuming a Nurturing Parent state to provide liberal amounts of positive stroking to the worker's Adapted Child.

A manager also needs an understanding of ego states to interpret and modify her or his own responses to patients and coworkers. Information from the Critical Parent produces the compulsions and quirks that are responsible for each manager's idiosyncrasies (Harris, 1969). For example, a compulsion for cleanliness causes some nurses—and some managers—to reject certain types of patients. A compulsion for order makes some nurses—and some managers—critical of disorganized workers. A personality quirk or behavioral rigidity may render a nurse or manager objectionable to patients or coworkers.

One function of the Adult state is to check the suitability of the old Parent and Child state data for the person's current life situation. A manager can strengthen her or his Adult state to balance an overdeveloped Parent or Child state by learning to recognize Parent and Child cues, counting to 10 before answering a provocative remark, and developing a philosophy to guide work behavior. An adequate amount of positive strokes enables a manager to assume her or his Adult state for objective problem solving, and a manager should actively solicit positive strokes from others. It is quite appropriate for a manager to ask a superior for recognition in the form of a pay raise, promotion, letter of commendation, or special training.

Berne claims that behavior is predetermined by an unconscious life plan that developed in

childhood in response to parental injunctions and one's responses to them. A person's unconscious life plan determines his or her behavior pattern or script, which maintains the life position established in childhood: I'm Not OK, You're OK; I'm Not OK, You're Not OK; I'm OK, You're Not OK; or I'm OK, You're OK. Some life scripts are positive, because they challenge the person's best efforts and elicit positive strokes from others. Some are negative, because they predispose to frustration and failure and produce negative strokes from others (Elder, 1978). A nurse manager may be unsuccessful because he or she follows a negative life script, like "Sisyphus" (the manager works hard but gives up on the brink of success, and, so, loses all gains). A manager may be successful, because he or she follows a positive life script, like "Florence" (manager resists maternal pressures to settle for a respectable but dull life-style and earns fame by leading others in a noble cause) (Berne, 1972).

Thus, transactional analysis can strengthen a person's Adult ego state, thereby improving reality testing, outcome prediction, and decision effectiveness. As a group activity, transactional analysis is less popular now than formerly, but the resourceful nurse manager will use it to prevent crossed communications with coworkers.

COMMUNICATION LEVELS

Klatt (1978) differentiates among four levels of communication in an organization. At the

top level a "broadcast" system distributes the same message in nonpersonal fashion to all agency employees. The media used by the broadcast system include agency newspaper, bulletin board, and public address system. The purpose for the broadcast communication system is work force unification. At the second level of organizational communication are formal information systems that supply different groups of workers with specific information needed to carry out assigned job duties.

The media used in the formal information system include video screen and computer print-out messages, printed reports, telephone messages, graphs, and some conversational interchange.

At the third level of organizational communication are supplementary and interpersonal communications that provide amplification, clarification, and feedback for the broadcast and formal information systems. The media used in supplementary systems are printed reports, telephone messages, telephone conference calls, and face-to-face communications. At the fourth level of organizational communication is the instrumental dyadic manager-subordinate interchange. Media used in the instrumental system are predominantly written memos, telephone messages, electronic mail, and face-to-face dialog.

According to theorists, each human communication consists of two components: informational and relational (Brown, 1990). Each component supports the other, in that sharing of information creates common interests and strengthens relationships—and improving relationships increases the willingness to share information. Consequently, to enhance effectiveness of any level of organizational communication (broadcast, formal, supplementary, or instrumental), managers must strengthen both informational and relational aspects of the process. Recommendations for improving the informational content of organizational communications abound. Experts have designed guidelines for biological systems-oriented chart-

MEMO CAPSULE

Effect of Leadership Style on Interactions

- Autocratic Leadership: Parent-child interactions
- Neurotic Leadership: Child-child interactions
- Democratic Leadership: Adult-adult interactions

ing of patient information (Kiely, 1984). Others have recommended that nurses' change-of-shift reports be improved through use of tape recordings (Soupkoff and Martz, 1971); computer entries (Stein, 1969); standardized written forms (Reiley and Stengrevics, 1989); and patient rounds (Richard, 1988). Recommendations for improving the relational aspect of communications are more scarce. However, nurse managers could increase their own and subordinates' productivity by applying the following guidelines:

1. There is never complete agreement in shared meaning between manager and subordinate; several repetitions of information exchange are necessary to maximize superior-subordinate understanding of a complex undertaking.
2. A bureaucratic organization structure enforces manager-subordinate status inequality, with more numerous and lengthy downward than upward communications through the hierarchy (Brown, 1990). Consequently, subordinates must fight for the manager's recognition in small group and dyadic conversations before they can transmit informational messages. To offset the effects of this status differential, a nurse manager should restrict the number and length of her or his messages to subordinates and encourage more frequent and lengthy communications from them.
3. Different persons have different personal space bubbles. An individual feels threatened when a nonintimate intrudes into her or his sphere of intimacy. When it is necessary to communicate vital work-related information to a subordinate in face-to-face meeting, the manager should arrange seating for the interchange, so that the subordinate's attention is not distracted and his intimate personal space zone is not invaded (Klatt et al., 1978).
4. Under pressure of time, a communicator is likely to neglect social courtesies and avoid attending carefully to verbal and behavioral messages from another. When the manager must exchange information with a subordinate about important work issues, enough time should be scheduled to ensure full disclosure and complete understanding of the transmitted information. The meeting should be scheduled for a day and hour when all participants can devote full attention to the matter at hand (not the first hour on Monday morning or last hour on Friday afternoon).

• **MEMO CAPSULE** •

Improving Communication

- Repeat important message in other terms, different channel
- Shorten managerial messages, encourage worker messages
- Honor other's personal space when giving work information
- Ensure adequate time and a quiet environment for communicating

ORGANIZATIONAL DOUBLE BIND

Wishbow (1987) theorizes that some communication difficulties in a complex organization arise from circumstances akin to the "double-bind" phenomenon. Bateson (1972) claimed that schizophrenia develops when a child is subjected to a "double bind" by receiving paradoxical messages from the mother—one meaning at the verbal level, a different meaning at the psychological level. Each member of a complex organization is expected to play multiple roles, and the behavioral expectations of these roles are often contradictory. The manager of a nursing unit may find herself or himself in a

double bind when expected to serve as advocate for staff nurses during their power struggles with agency physicians and as advocate for agency administrators during contract struggles with the staff nurses' union. An ambitious young nurse may find herself or himself in the double bind of needing sanction and support from an older, more established nurse manager whose organizational power base is threatened by the younger nurse's proposals for change.

MEMO CAPSULE

Sources of Double Bind

- Control costs, but meet patients' total needs.
- Treat workers equally, but show consideration for their individual needs.
- Be an autonomous professional, but don't question a doctor's judgment.
- Discipline employees for tardiness and absenteeism, but do nothing to increase nurse turnover.
- Alert workers to unacceptable aspects of performance, but never injure a worker's self-confidence.

Wishbow cautions that it is more difficult to diagnose and treat a double-bind problem in a complex organization than in a dysfunctional family. However, three small-scale change efforts may minimize the frequency or severity of the double-bind phenomenon in a nursing organization.

1. Defuse negative feelings by training employees in metacommunication skills or means of talking about the nature of the double bind.
2. Decrease role ambiguity by training managers to construct explicit statements of role expectations for new employees.
3. Schedule frequent recreational and social events to provide opportunities for em-

ployees to express their emotional, irrational side.

DOCUMENTATION OF CARE

From a legal standpoint, documentation of nursing actions and conclusions are probably nurses' most important written communication. All health agencies establish formal policies governing time, content, nature, terminology, and form for nurses' recorded observations, diagnoses, interventions, and evaluations. However, nurses' documentation of care is often incomplete or inaccurate and is likely to be undervalued by nurses and other health professionals (Steckel, 1976; Walker and Semanoff, 1964). Interviews with medical-surgical nurses in a large Veterans Association hospital revealed that the following factors inhibited nursing documentation: lack of time; lack of a suitable writing place; redundancy of chart forms; intimidating terminology; and negative consequences of reporting errors and incidents. Subjects reported three factors as facilitating nursing documentation: flowcharts located at the site of nursing activity, documentation forms that reflect the nursing theory adopted by the agency, and a negative change in the patient's condition (Tapp, 1990). Study findings suggest that the nurses' station should be used exclusively by nurses and suitable space should be provided for thoughtful writing by staff nurses. Chart forms should be reviewed regularly to ensure that nurses are not expected to record the same patient care information in more than one place. Older nurses may also need in-service education to become comfortable enough with the terminology of the nursing process, nursing assessment, and nursing diagnosis to use these terms in daily charting.

MANAGEMENT INFORMATION SYSTEMS

Integrated, automated MISs have been installed in many health care agencies in the hope that management effectiveness will be enhanced through increased management information. In

agencies with computerized MISs, nurse managers receive monthly, weekly, or daily computerized reports of patient admission and discharge; patient census; personnel hired, separated, and on payroll; personnel work and absence hours; supply use; diet orders; ordered x rays; patient infections; budget-account summaries; and the like. The continuous supply of MIS reports has increased managers' job difficulty for several reasons. Managers find much of the information in these computerized reports irrelevant and distracting, because it relates to matters over which they have no control. Continuing information about a problem issue to which one can make no reasonable response produces a type of learned helplessness (Klapp,

1986). Even potentially useful information becomes nonsense or noise when information volume is excessive or the rate of information transmission exceeds channel capacity. Administrators can protect nurses from information overload and learned helplessness by ensuring that nurse managers at each hierarchical level determine what type of operating information they should be given, in how much detail, at what frequency, and in what form. Computerized information reports should be designed to satisfy these requests.

SUMMARY

The nurse manager's principal activity is to communicate information, ideas, opinions, at-

RESEARCH BRIEF

Factors Influencing the Documentation of Nursing Practice

Purpose: Identify facilitators and inhibitors of hospital nurses' documentation of nursing measures

Sample: Fourteen persons randomly selected from 93 medical-surgical staff nurses in a west coast Veterans Administration hospital

Method: Subjects were interviewed individually, using an interview schedule consisting of 5 open-ended questions about factors that inhibit and facilitate nurses' documentation, priorities for documentation, and use of documentation. Interviews were tape recorded, transcribed, and analyzed using the constant comparative method. Concepts and themes were identified, and data from subsequent interviews were coded and placed in previously established categories. Categories were continuously analyzed and combined following each interview until no new concepts or themes could be identified

Results: Subjects reported they were taught that documentation was important, but peer pressure from coworkers caused them to value

hands-on care above documentation. All but one said that lack of time was the major inhibiting factor. To obtain time for documentation, many omitted meals, remained overtime, or omitted psychosocial interventions. Some said that the lack of space to think and write discouraged documentation; the nurses' station was frequently "taken over" by other disciplines. Some said record forms solicited redundant information. Some were intimidated by terminology of the nursing process, or negative connotations of Incident Reports.

Application: When a nurse executive encourages agency nurses to select a particular nursing theory to guide practice, caregivers are more comfortable in using terminology from that theory to communicate patient information. By eliminating requests for redundant information, praising nurses for appropriate documentation, and using incident reports to coach rather than punish, managers can increase quality, usefulness, and timeliness of nurses' documentation

titudes, and feelings to others to facilitate work; increase motivation; effect change; optimize care; increase satisfaction; and facilitate cooperation. Effective communication requires accurate perception and clear transmission of intended messages. Therefore, a manager needs high-level listening, speaking, and writing skills. Techniques of message mapping, transactional analysis, and script analysis are helpful in clarifying overt and covert messages transmitted by coworkers.

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Time Management

He's murdering the time. Off with his head!

LEWIS CARROLL

OBJECTIVES

After reading this chapter, you should be able to:

1. Keep a daily time log for one week, and tally time spent in each task component of your job.
2. Write three long-term and three short-term personal goals, and rank these in order of priority.
3. Identify two activities that will promote the achievement of your highest-priority long-range goal and two activities that will promote the achievement of your highest-priority short-range goal.
4. Plan your personal time schedule so as to provide a four-hour time block each week for activities that support your high-priority goals.
5. Develop a Gantt chart to guide a group of nurses through a complex, multistage project.
6. Analyze your work habits to identify two common time traps, and develop a plan to insulate yourself against both.

In planning for the most economical use of personal and professional resources, the nurse manager may experience the greatest difficulty in controlling time expenditure. Although other managers in the same agency may have a larger personnel, operating, or capital expenditure budget, all managers have the same amount of time: 168 hours a week, of which at least one-fourth will be spent on the job. How

ever, the nurse manager does not have full control over her or his duty time, because much work time is controlled by superiors, peers, subordinates, and clients. Surprisingly, the higher a manager's position in the hierarchy, the more her or his time is under others' control.

Despite excessive demands by others, a nurse manager can control time expenditures to accomplish more work in less time. To spend time

economically, a manager must clarify goals; set priorities among competing goals; identify the one or two most valued goals to achieve; obtain the personnel and material needed for critical activities; schedule time for activity performance; and discipline herself or himself to adhere to the plan until the goal is reached or the plan is changed.

ANALYZING PRESENT TIME USE

The first step toward improving time utilization is to determine how one's available time is spent. Some experts (Applebaum and Rohrs, 1981; Drawbaugh, 1984) recommend that each person keep a daily log, recording their activities at half-hour intervals. When the record has been kept long enough to yield a representative sample of the person's job activities, she or he should identify the general categories of activity performed, such as planning; budgeting; scheduling; supervising; decision making; evaluating; and labor relations. The manager should categorize all logged activities to determine what percentage of total work time is spent in each type of activity. If the analysis reveals that excessive time was spent in one category and insufficient time was spent in an equally important category, the manager should correct the imbalance. Without a time study and activity analysis, a manager is likely to spend the most time in activities that she or he performs well. A head nurse who had been promoted from a clinical specialist position might spend more time than necessary teaching staff and conducting research while slighting responsibilities for budgeting, employee discipline, or labor relations. Also, a time-log analysis enables a manager to identify whether some present activities are remnants of past programs that have outlived their usefulness but have not been discontinued. Cancellation of all outdated, unnecessary programs and activities will free blocks of the manager's time to be invested more productively.

Kozoll (1982) claims that personality characteristics exert a major influence on an indi-

vidual's use of time and describes key characteristics of five personality types as follows:

1. Goal centered: Regularly sets goals, establishes priorities, and measures progress toward goals.
2. Plan oriented: Develops detailed plans, rarely procrastinates, follows up to ensure that what was planned was carried out.
3. Completion focused: Defines what is needed to finish assignment and is persistent and self-demanding in following through with activities.
4. Emphasis centered: Maintains a routine, makes decisions under pressure, calmly handles demands.
5. Limits sensitive: Delegates easily, separates work from personal life, stays within personal energy limits.

Perhaps the manager's first step toward achieving effective time management should be to identify which of her or his personality traits support and detract from an effective use of time

MEMO CAPSULE

Personality Influences on Time Use

- Goal centered: Continuous measurement of progress toward goals
- Plan oriented: Detailed and specific procedures, no procrastination
- Completion focused: Persistent application, consistent follow-through
- Emphasis centered: Calm under pressure, undistracted by interruption
- Limits sensitive: Separate work from personal life, conserve personal energy

SETTING AND PRIORITIZING GOALS

One expert (Lakein, 1976) suggests that a person can improve time utilization by setting

personal goals to be accomplished in three time periods: next five years; next six months; and present day. The person should categorize the goals for each time period as (A) highest priority (must be accomplished); (B) moderate priority (achievement desirable); or (C) trivial importance (can be abandoned temporarily). The manager should establish priorities among long-term, intermediate, and short-range goals, because there will be insufficient time for realizing all goals in any category. Health care organizations are characterized by unexpected events of crisis proportion. Therefore, some of a manager's planned activities are displaced by crisis handling, such as admission of a large number of patients from a factory explosion, an outbreak of food poisoning, or a train wreck. A manager who prioritizes goals on a daily basis can quickly decide which goal(s) to abandon when forced to handle unexpected events.

In prioritizing goals on a daily basis, a nurse manager will notice subtle changes in organization climate and unit workload. If the manager discovers that for several days in succession she or he has given high priority to finding overtime or agency personnel, she or he may discover that staff absenteeism is higher than usual or patient acuity is increasing.

After long-range, intermediate, and short-range goals have been classified as A, B, or C, the manager should rank all goals in the high- and moderate-priority categories. Low-priority goals should be ignored for the present, so that the manager can devote all available time to goals of greatest importance to the agency. Next, the manager should take the two top-ranked high-priority goals and the two top-ranked moderate priority goals and list several activities likely to promote the achievement of each. These activities should be incorporated into a written plan and time schedule for reaching the four goals.

Lakein advises that force of habit be used in pursuing the most important goals by scheduling regular blocks of time for the activities that support the two high-priority goals. If the same

block of time each week is reserved for activities supporting a particular goal, momentum will build for appropriate goal-seeking behavior.

The manager should construct a decision matrix chart to identify activities that will contribute most to the realization of particular objectives (Applebaum and Rohrs, 1981). In constructing the matrix, program objectives are listed along the vertical axis, activities along the horizontal axis, and a factor number from 0 to 100 is recorded alongside each objective to show its relative importance. At the intersection of each activity and objective, two numbers are recorded. (1) a number from 0 to 100 to reflect the probability that the activity will result in goal attainment; and (2) a number from 0 to 100 to reflect the value of the activity (the product of multiplying the goal's importance by the probability of attainment). Finally, the values in each column are totaled and multiplied by the probability that the manager will be able to perform the activity. This latter quantity is the activity's overall value. When overall values for all listed activities are compared, the manager can easily decide which of the activities will contribute most to the four goals as a group.

GANTT CHART

A major reason for managers' problems in time control is the fact that the scope, depth, and length of many management assignments cannot be accurately estimated at the outset (Moore, 1987). Therefore, a graphic device, which forces attention to factors influencing a project's scope, depth and complexity should be used in estimating time parameters for a multistage project.

The Gantt chart is a graphic device with which a manager can plan and monitor work time for a complex project (Applebaum and Rohrs, 1981). This device facilitates process evaluation for several interdependent activities that are carried out simultaneously to reach a set goal by a specific date. A nurse manager who is directed to implement an outpatient surgery program by a specified date may conclude that,

to admit the first patient on the target date, the project task force must perform the following activities.

1. Design the forms that are to be included in the patient's clinical record for outpatient surgery service.
2. Design a referral form to be used by outpatient, emergency and clinic physicians and nurses to record the history and physical examination data to be included in the clinical record of ambulatory surgery patients.
3. Develop a procedure to ensure the incorporation of preadmission laboratory test results in the clinical record of ambulatory surgery patients.
4. Equip the patient unit on which ambulatory surgery patients will be admitted, given preoperative care, receive postanesthetic recovery care, and receive discharge instruction.
5. Conduct a marketing survey to determine the number and types of ambulatory surgery patients to be admitted daily or weekly during the following year. Forecast types and numbers of nursing interventions that ambulatory surgery patients will require.
6. Write nursing policies and procedures to guide nursing practice in ambulatory surgery and recovery unit.
7. Calculate the number and categories of nursing personnel that will be needed to care for the expected numbers and types of ambulatory surgery patients.
8. Recruit, hire, and orient needed nursing personnel.
9. Assign, schedule, and coach nursing personnel in required duties.
10. Build the unit's nursing personnel into a cohesive work team.

To construct a Gantt chart for the ambulatory surgery program, the manager should list planned activities along the vertical axis and time units (days of the week, weeks of the

month) along the horizontal axis. For each activity listed, a suspended bracket symbol \square indicates the time interval scheduled for execution. As the work proceeds, a solid horizontal line \square below each bracket shows what proportion of the task was accomplished in the allotted time. Figure 11-1 indicates the time relationships among the several activities required to implement the ambulatory surgery program, the amount of time allocated for each activity, and aspects of program implementation not completed in the allotted time. Obviously, activity shortcomings and resulting time overruns must be quickly addressed if the ambulatory surgery program is to begin on the target date. By displaying time "slippage" in the implementation plan, the Gantt chart stimulates both manager and team to refocus attention and resources, resolve unexpected problems, and keep the project on schedule.

PERFORMANCE EVALUATION AND REVIEW TECHNIQUE

The aerospace industry developed a Program Evaluation and Review Technique (PERT) that some nurse managers have used in coordinating a many faceted program and keeping a complex process on schedule (Applebaum and Rohrs, 1981). The PERT, like other planning methods, includes setting objectives, identifying requisite activities, deciding optimum sequence, organizing personnel, equipment, and supplies, and coordinating employees' efforts. However, the PERT differs from other planning techniques in the manager's educated guesses regarding three time estimates for each program activity: pessimistic estimate, most probable estimate, and optimistic estimate. The manager diagrams interactions among requisite activities to show activity sequence and time spent according to the three time estimates. The manager knows that some activities must be completed before others can begin and that some activities are more time-consuming than others. In addition, the manager is thoroughly familiar with the clinical practice area and,

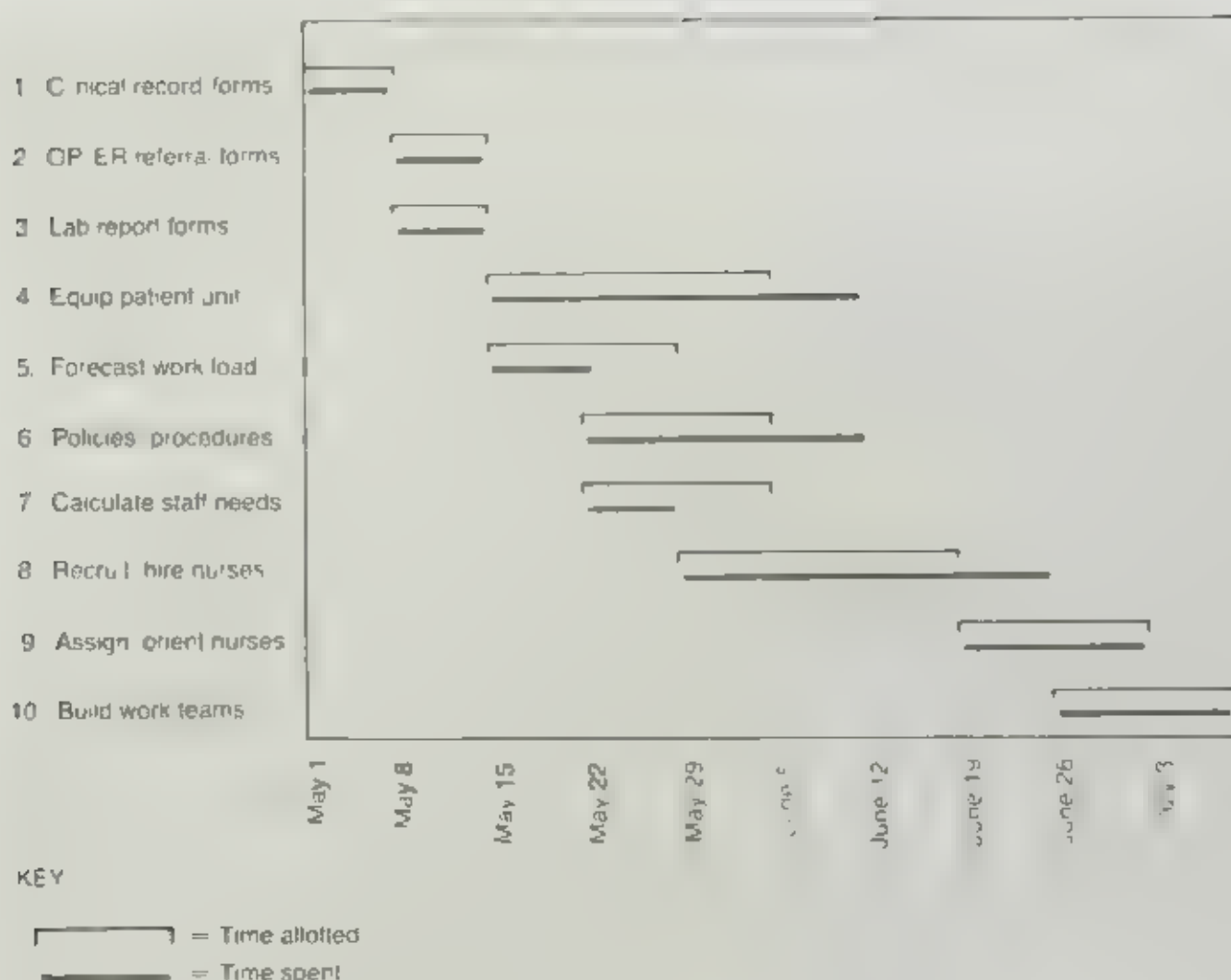


Figure 11-1 Gantt Chart—ambulatory surgery

therefore, can reallocate critical resources from one activity to another when unforeseen problems block progress through one of the three time paths.

Figure 11-2 is a PERT diagram that reveals an 8-week, 10-week, and 12-week path through the process of implementing a computerized patient-record system in a community hospital. As indicated by the diagram, the most optimistic (8-week) prediction involves steps B,D,F,I.; the most probable prediction (10 weeks) includes steps A,B,C,D,F,H,I.; and the most pessimistic prediction (12 weeks) involves steps A,B,C,D,E,F,G,H,I. The third track takes the most time and so is the "critical" path, because *any* delay along this path will

delay the implementation of the computerized record system beyond the latest acceptable date.

The PERT diagram is used to develop a PERT Activity Chart that shows the time allotted, latest possible starting time, and slack time (difference between scheduled and latest possible start time) for each program activity. A PERT diagram with accompanying activity chart, like a Gantt chart, clarifies chronological relationships among several activities required in a complex project. By highlighting slack time for certain activities, the PERT chart facilitates resource shifting from one activity to another under emergency conditions.

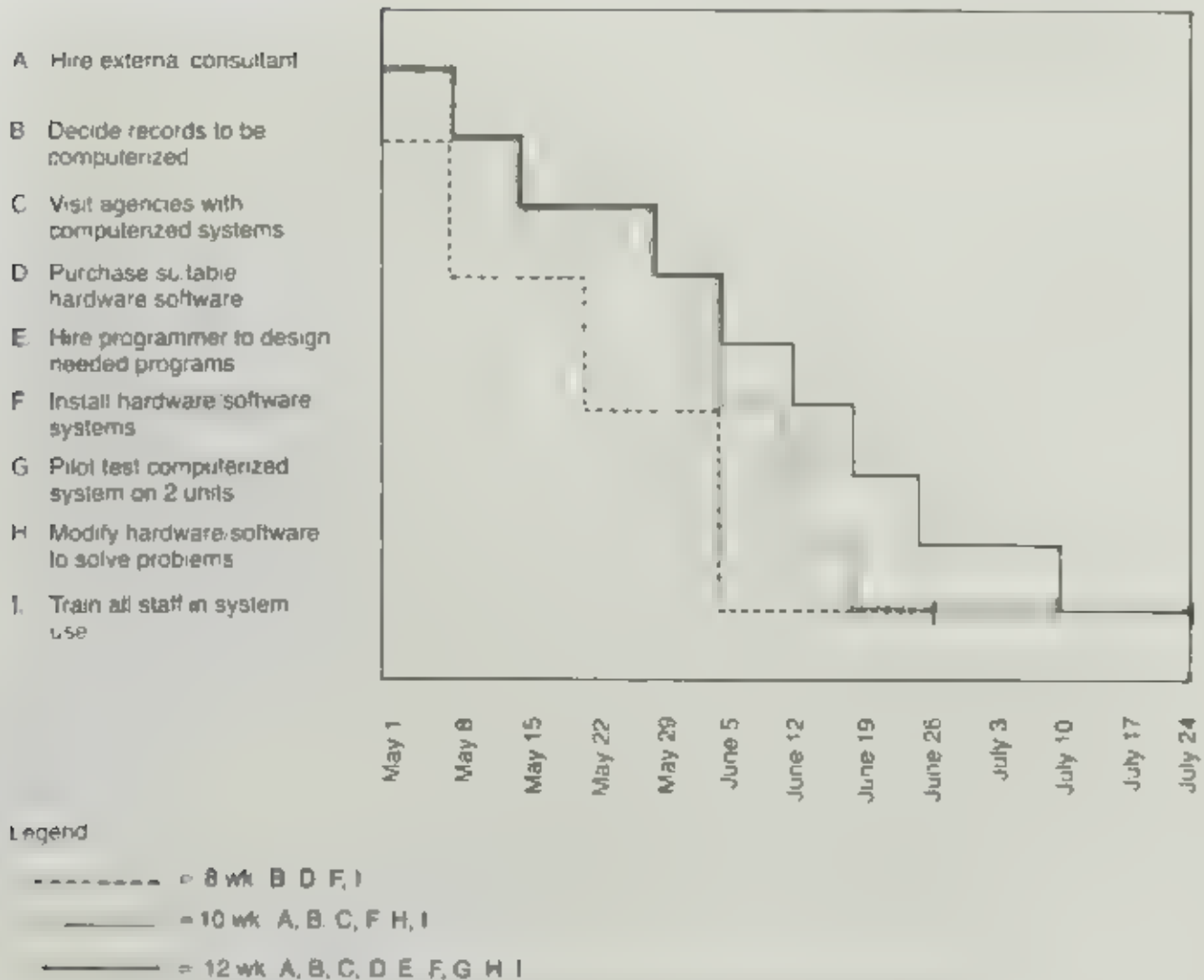


Figure 11-2 PERT chart: Computerized patient record system

DELEGATION

In addition to such specialized time planning techniques as decision analysis matrix, Gantt chart, and PERT, the nurse manager can increase the work time at her or his disposal by delegating selected responsibilities to subordinates. Delegation is the assignment of part of one's job duties to another person, together with the authority to perform the delegated tasks, without giving up one's own responsibility for the tasks. Some managers resist delegating responsibilities to subordinates. The most appropriate reason for failing to delegate is the fact that much of a manager's operating information is "soft," that is, verbal information gathered

through conversation and stored in the manager's memory. To delegate some duties, a manager would have to transmit a large amount of this private information to the delegatee. Often, a manager is unwilling to transmit primary information because it is confidential. Less acceptable reasons for the reluctance to delegate are lack of confidence in subordinates' abilities; fear of losing control of valued activities; fear of overworking subordinates; concern that superiors see delegation as evidence of managerial ineptitude; and fear that subordinates may usurp the manager's job. Objective self-examination or consultation with a mentor will ameliorate most of the latter concerns and substan-

MEMO CAPSULE

Timesaving Methods

- Daily time log: Keep track of time spent in essential and nonessential activities.
- Personal goals: Categorize goals with high, moderate, and trivial import.
- Matrix chart: Identify activities most supportive of essential goals.
- Gantt chart: Graph time needed to complete each activity in a complex project.
- PERT chart: Record a diagram of pessimistic, probable, and optimistic time estimates.
- Delegation: Assign part of one's job responsibilities to selected subordinates.

nate the fact that failure to delegate is an evidence of managerial weakness.

Careful planning is needed to decide which duties to delegate, to whom each should be delegated, and how to empower delegates for effective performance. Applebaum and Rohr (1981) claim that managers should *not* delegate responsibility for strategic planning or personnel evaluation or discipline. These experts advise delegating responsibility for a total project, rather than a portion of it, to set clear limits on the subordinate's new responsibilities. Entrusting a subordinate with responsibility for a total project implies confidence in her or his abilities, thereby stimulating initiative and task commitment. McConkey (1974) recommends delegating responsibilities by contract, so that manager and subordinate understand all conditions relating to the assignment. The two should discuss at length and commit to writing their agreement about task scope, expected results, accompanying authority, and methods for evaluating outcomes. To empower the subordinate with requisite authority, the manager should notify the entire work group in writing that, with reference to the named project, the selected subordinate is authorized to obtain resources, issue orders, impose controls, and request reports. To

motivate subordinates to fulfill delegated duties enthusiastically, a nurse manager should select the best-equipped person for the responsibility, provide direction as needed, and reward delegate(s) for the successful completion of delegated tasks.

TIME TRAPS

To use time effectively, a manager must avoid common time traps. The most dangerous trap is the activity wheel (motion for motion's sake), or tendency to become enmeshed in an activity and lose sight of its purpose. A manager who establishes goals for a complex project usually can keep a clear sense of purpose during early project phases. However, after time has elapsed, the rush and pull of events distracts the manager from project purpose, and she or he becomes caught in a flurry of "busy work." To avoid the activity wheel, a manager should set goals in behavioral terms, construct a Gantt or PERT chart to specify project activities, allocate a specific amount of time to each, obtain commitment from persons whose output is crucial to project success, establish check points throughout the implementation period for monitoring progress toward goals, and circulate interim progress reports to key executives for their comments.

Another time trap is the tendency to procrastinate. Procrastination, the habit of delaying performance of tasks that should be promptly executed, results from fear of making mistakes that will elicit "punishment" from others (Scheffee, 1978). A manager can minimize fear and diminish procrastination by self-talk that minimizes significance of past failures and emphasizes past successes and by contracting to share responsibility with others for difficult projects (Meyer, 1967).

Non-health care managers report that their most common obstacles to effective time management are telephone interruptions, burdensome paperwork, and unannounced visitors (Moore, 1987). These are common time traps for nurse managers, as well. A manager who

maintains an "open-door" policy to accommodate coworkers is surrendering control over work time and subjecting herself or himself to unnecessary frustration. Drop-in visits by all categories of personnel can be decreased to manageable levels by keeping one's office door closed except for one or two hours a day, at a time when the manager is executing short-term tasks that can be interrupted without undue distraction. Subordinates' drop-in visits can be minimized by scheduling regular meetings with the total staff to update their information about current problems and projects. Superiors' drop-in visits can be minimized by sending appropriate administrators and executives a weekly memo outlining progress with ongoing programs and reporting events that signify change in the agency's internal or external environment. A manager who keeps her or his office door closed and posts blocks of "quiet time" when she or he can be interrupted only for emergencies will obtain time for addressing complex issues that require data analysis, consultation, and multistep decision making. When an unscheduled visitor pushes through the manager's closed office door, the manager should stand, move toward the visitor, and remain standing while investigating the reason for interruption and scheduling a later appointment with the individual. A courteous explanation that one is checking accounts, writing a report, or preparing materials for a committee meeting should defuse the visitor's irritation at being rebuffed.

To eliminate run-on telephone calls, a manager should eliminate all social chat from telephone conversations and prepare an agenda for any multitopic phone calls that he or she initiates to conduct agency business. Subordinates, superiors, and clients are more likely to honor a manager's scheduled quiet time if the manager directs a secretary to screen incoming calls, provide routine operating information as needed, and schedule a formal appointment later in the same day for persons whose business requires the manager's thoughtful attention.

Nurse managers make effective "linking pins" to coordinate various groups in a health agency and, so, are appointed to numerous standing and ad hoc committees. The trend toward participative management and decentralized decision making will increase the amount of time that nurse managers spend in meetings and subject them to increased frustration from unproductive group discussions. To decrease time waste from unproductive meetings, some industries require that an executive's permission be obtained before a meeting can be held (Moore, 1987). So extreme a remedy should be unnecessary (and would be unpopular) in an organization of health professionals. To shorten committee meetings and improve decision quality, managers should analyze the group dynamics of each committee of which they are members and identify how they can intervene to facilitate group process relative to task activities and group-maintenance activities. As a committee chairperson, a manager should schedule meetings at a time and place that facilitates prompt attendance by the greatest number of members, circulate a written agenda a day or two before each meeting, begin and end all meetings on time, facilitate active participation by all committee members through all stages of

MEMO CAPSULE

Time Traps

- **Busy work:** Repetitive activity without attention to purpose
- **Procrastination:** Reluctance to begin for fear of failure or punishment
- **Telephone interruptions:** Inappropriate, unnecessary, run-on conversations
- **Unexpected office visitors:** Drop-in calls by supervisors, idle coworkers
- **Unproductive meetings:** Lack of planned agenda, inefficient discussion leader
- **Unnecessary work:** Inability to refuse participation in worthwhile projects

discussion, and circulate minutes of each meeting to all committee members and the nurse executive a day after each meeting.

SAYING NO

To improve time use, a nurse manager must sometimes unlearn defeatist attitudes acquired during earlier life stages. Nurses trained under autocratic leadership may develop guilt feelings when they don't "keep busy" throughout an entire work shift and, so, are tempted to engage in repetitive, unproductive activity and to avoid sedentary analytic and planning activities. Nurses who see themselves primarily as crisis handlers (experience in acute and critical care environments may reinforce this self-image) may overvalue adaptive response to crisis and undervalue the importance of thoughtful planning. When planning is neglected, crises increase in frequency and severity, and the manager spends excessive time in "firefighting" (McCarthy, 1981). Managers who see themselves in the role of "rescuers" have difficulty refusing another's bid for assistance, although granting such requests prevents the manager's pursuit of personal goals. Most people are reluctant to say "No" to reasonable requests from a coworker. Nevertheless, under the following conditions, a time-conscious manager should refuse responsibility for activities not included in her or his required job duties:

1. When the activity will not serve the manager's professional goals.
2. When the activity requires time or ability that the manager does not possess.
3. When the activity is distasteful or holds no interest for the manager.
4. When undertaking the activity will prevent the manager's involvement in more rewarding activity.

To avoid guilt feelings and unfavorable consequences from refusing a coworker's request for help, the manager should say "No" firmly but tactfully. The most effective way to refuse

an unwanted assignment is to say "No" clearly, while looking directly at the requestor and wearing a pleasant facial expression. The manager should not qualify her or his response by offering reasons for the refusal, because the suppliant may interpret these as indicating conditional refusal and suggest methods for overcoming the manager's reluctance.

SCHEDULES

There are several simple, yet effective, devices for improving time use. Carrying a pocket calendar facilitates accurate and efficient scheduling of appointments, assignments, and quiet time. Writing a list of "things to do today" on a 3- × 5-inch card and clipping it to the cover of the pocket calendar will spur the manager to reserve periods of high energy level for attention to most difficult or least pleasant challenges and to group small simple tasks for attention during low-energy periods. Maintaining a "tickler" file on a desktop calendar will cue the manager on when to begin preparations for meetings and when to follow up on committee decisions and ongoing projects; thereby avoiding last-minute rush to meet deadlines. Scheduling a "rest and relaxation" day every month will enable the manager to catch up on journal reading, do library research, and fulfill social or professional obligations without stealing time from high-priority projects. Most important of all, a manager should acquire a reasonable perspective about work obligations (Salome, 1986). An ability to laugh at one's mistakes and avoid perfectionism will save time that otherwise would be spent in self-recrimination and overwork.

SUMMARY

A nurse manager can improve time use by identifying two or three highest-priority work goals, analyzing time use to identify the common causes for time waste, and using time-management devices, such as a Gantt chart, PERT chart, and delegating responsibilities. In addi-

RESEARCH BRIEF

Nurses' Use of Time

Purpose: Assess RNs' allocation of time to various activities on different shifts, services, and days of the week in a tertiary care or teaching facility.

Subjects: Random sample of RNs from six clinical specialty units of a large metropolitan hospital.

Method: Graduate and senior undergraduate nursing students who were trained in work-sampling techniques recorded observations of nurses' activities every 15 minutes during an eight-hour shift. Observations were recorded on a check sheet developed by the investigator in conjunction with hospital nurses. Activity categories were: time with patient; patient chart; preparation of therapies; shift change; professional interaction; miscellaneous clinical; doctor's orders; in-service; paperwork; phone communication; supplies; miscellaneous nonclinical; don't know. The percentage of occurrence of each activity was calculated.

Findings: In a typical eight-hour shift, nurses spent 31 percent of their time (2½ hours) with patients and 45 percent of their time (3½ hours) in indirect care of a clinical nature (charting 11

percent; shift change 9 percent; professional interaction 8 percent; doctor's orders 3 percent; miscellaneous clinical 4 percent). Nurses spent 10 percent of their time in nonclinical activities (paperwork, phoning, obtaining supplies) and 13 percent of their time in personal activities (meals, breaks, personal communication). There were significant differences across specialties in time spent with individual patients. The average time spent with each patient was the lowest in medicine (18 minutes on day shift) and surgery (15 minutes on evening shift); the highest in obstetrics (39 minutes on day shift) and pediatrics (38 minutes on evening shift).

Application: Patient acuity level was the highest on medical units, where the average time spent with individual patients was the lowest. There is no "industry standard" to indicate the amount of professional nursing time required to provide safe and effective care to patients with different (medical and nursing) diagnoses. However, nurses report that they can give only "essential" care in the time available and that time pressure is a continuing source of frustration and job dissatisfaction.

Source: Hendrickson, G., Doddato, T., and Kovner, C. How do nurses use their time? *Journal of Nursing Administration* 20(3):31-37, 1990

tion, the manager should decline invitations to participate in activities that are worthy and interesting but will not advance his or her job performance or career goals.

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IV

STAFFING

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Principles of Staffing

Fast personnel decisions are apt to be the wrong decisions.

PETER DRUCKER

OBJECTIVES

After reading this chapter, you should be able to.

1. Diagram the staffing system in your nursing organization to reveal three inputs, two throughput paths, three outputs, and two feedback loops for the system.
2. Identify two subsystems within the nurse staffing system for your nursing organization (perhaps use of supplementary agency personnel, registry employees, or traveling nurses), with input, throughput, and output elements for each.
3. Interview a nurse manager in your agency to determine her or his opinions about the advantages and disadvantages of the current method for nursing assignment (functional, team, primary, modular, case).
4. List the variables to take into consideration to evaluate nursing workloads.

If management means to get work done through others, a primary managerial function is to staff, or assemble and ready those "others" who perform agency work. Staffing is a logical operation that consists of several interdependent actions:

1. Identifying the type and amount of nursing care needed by agency clients
2. Determining personnel categories that have the knowledge and skill to perform needed care measures.
3. Predicting the number of personnel in each job category that will be needed to meet anticipated care demands.
4. Obtaining budgeted positions for the number in each job category needed to

care for the expected types and numbers of patients.

5. Recruiting personnel to fill available positions.
6. Selecting and appointing personnel from available applicants.
7. Combining personnel into desired configurations, by unit and shift.
8. Orienting personnel to fulfill assigned responsibilities.
9. Assigning responsibilities for patient care to available personnel.

Steps 1, 2, and 3, determining the type of care needed and number and types of personnel required, are discussed in Chapter 15. Steps 5, 6, and 7, recruiting, selecting, and orienting needed personnel, are discussed in Chapter 13. This chapter will serve as an overview of the total nurse staffing system.

Each divisional nursing director and head nurse is responsible for developing an appropriate staffing plan for the nursing division or unit. The vice-president of nursing is responsible for designing an overall staffing system for the nursing department as a whole. Staffing policies should be applied uniformly in all units, so that shift supervisors and "floating" staff nurses need not continually readjust to different rotation patterns, holiday schedules, and overtime practices on different units. Uniform staffing policies will prevent excessive transfer of employees from one division or unit to another in order to obtain less frequent weekend assignments and shift rotations. In addition, uniform staffing policies facilitate labor contract administration. Most labor contracts specify work hours, conditions of overtime work, frequency of shift rotation, vacation schedules, and availability of leaves of absence. When nursing personnel who are covered by a single labor agreement are subjected to different staffing practices in each division or unit, employees with the least favorable work schedules and conditions are likely to grieve their unequal treatment.

Each manager's staffing decisions are influ-

enced by her or his beliefs about workers' abilities and obligations. To minimize misunderstanding between managers and caregivers, the vice-president and divisional directors of nursing should develop a staffing philosophy. Based on it, nurse administrators and managers should develop staffing objectives. Then, details of the staffing system should be crafted to promote the achievement of the staffing objectives.

Managers of a hospital nursing department might adopt the following staffing philosophy:

We believe that it is possible to match employees' knowledge and skills to patients' care needs in a manner that optimizes job satisfaction and care quality. We believe that the technical and humanistic care needs of critically ill patients are so complex that all aspects of their care should be provided by professional nurses. We believe that the health teaching and rehabilitation needs of chronically ill patients are so complex that all direct care for chronically ill patients should be provided by professional and technical nurses. We believe that patient assessment, work quantification, and job analysis should be used to determine the number of personnel in each category to be assigned to care for patients of each type (such as coronary care, renal failure, chronic arthritis, paraplegia, terminal cancer, etc.).

We believe that a master staffing plan and policies to implement the plan in all units should be developed centrally by the vice-president of nursing, divisional nursing directors, and representatives of the head nurse and staff nurse groups. We believe the staffing plan should be administered at the unit level by the head nurse, so that selected plan details, such as shift-start time, number of staff assigned on holidays, and number of employees assigned to each shift can be modified to accommodate the unit's workload and work flow.

On the basis of the foregoing philosophy, nurse managers might develop the following staffing objectives:

1. Provide an all-professional-nurse staff in critical care units, operating rooms, labor and delivery unit, and emergency room

2. Provide sufficient staff to permit a 1:1 nurse-patient ratio for each shift in every critical care unit.
3. Staff general medical-surgical, obstetric, pediatric, and psychiatric units to achieve a 2:1 professional nurse-practical nurse ratio.
4. Provide sufficient nursing staff in general medical-surgical, obstetric, pediatric, and psychiatric units to permit a 1:5 nurse-patient ratio on day and afternoon shifts and 1:10 nurse-patient ratio on night shift.
5. Involve the vice-president of nursing, divisional nursing directors, one representative from the head nurse or staff nurse, and practical nurse groups in designing the department's overall staffing program.
6. Design a staffing plan that specifies how many nursing personnel in each classification will be assigned to each nursing unit for each shift and how vacation and holiday time will be requested and scheduled.
7. Hold each head nurse responsible for translating the department's master staffing plan to sequential eight-week time schedules for personnel assigned to her or his unit.
8. Post time schedules for all personnel at least eight weeks in advance.
9. Empower the head nurse to adjust work schedules for unit nursing personnel to remedy any staff excess or deficiency caused by census fluctuation or employee absence.
10. Inform each nursing employee that requests for specific vacation or holiday time will be honored within the limits imposed by patient care and labor contract requirements.
11. Reward employees for long-term service by granting individuals' special time requests on the basis of seniority.

METHODS OF ASSIGNING PERSONNEL

Managers must decide what method of nursing personnel assignment is to be used in each nursing unit before details of the department's staffing system can be determined. There are five methods of assignment in general use: functional, team, primary, modular, and case.

Functional Method

The functional method of nursing assignment consists of separating the tasks involved in each patient's care and assigning each staff member to perform one or two care tasks (functions) for all patients in the unit. One registered nurse might be responsible for administering medicines to all unit patients, another for changing dressings and administering ordered treatments (such as postural drainage or warm compresses) for all patients, and another for predischARGE teaching for all patients. One licensed practical nurse might be responsible for taking vital signs and recording intake and output for all patients in the unit, while another might be responsible for giving baths to all bedridden patients. An aide or attendant might be responsible for making beds for all ambulatory patients and assisting mobility-impaired patients to move in bed or walk in the hall.

The advantage of functional assignment is that each staff member is likely to become skillful in performing the one or two tasks that are her or his usual responsibility. With increasing skill comes increasing speed and efficiency. Thus, with functional assignment relatively few nursing personnel can care for a large number of patients.

The disadvantage of the functional method of assignment is that each patient's care is fragmented. Because one nurse takes the patient's vital signs, another gives a bath, another administers medicines, and another provides health teaching, no one nurse understands the patient's total needs and coordinates all aspects of care. Also, when responsibility for a patient's care is divided among several nurses, it is easy

for each to deny responsibility for care omissions and mistakes. In agencies where functional assignment is used, physicians and nurse managers complain that it is difficult to fix responsibility for nursing errors. A divisional nursing director or physician who asks the nurse at a patient's bedside why an ordered treatment was not given is likely to be answered evasively: "I don't know anything about that, you'll have to ask the medicine nurse," or "That's not my responsibility; I'm doing dressings today," or "You'll have to ask the head nurse, she'll know who transcribed the order."

Although the functional assignment method is suitable for short-term use under emergency or disaster conditions, it is undesirable for long-term use, because it fragments and depersonalizes patient care.

Team Method

Team nursing is a method of nursing assignment that binds professional, technical, and ancillary nursing personnel into small teams of mutually supportive workers, thereby combining the superior knowledge and skill of professional workers with the lower personnel costs of technical or ancillary workers. It is common for one or two professional nurses, one or two practical nurses, and one or two attendants to be assigned as a team to provide total nursing care for a defined group of patients.

One registered nurse in the team is appointed by the head nurse to serve as team leader. All team members may receive reports about their patients' care needs from the team leader or member on the previous shift. However, the team leader decides which aspects of care for assigned patients will be performed by each team member. Usually, the team leader assigns another professional nurse or an experienced practical nurse to care for more acutely ill patients, to ensure informed observation and skilled interventions for the most seriously ill patients. Often, the team leader assigns practical nurses to bathe, feed, move, and change dressings for patients who are bedridden but not se-

riously ill. Aides are assigned to make beds, assist ambulatory patients with bathing and grooming, test urine, and perform simple care procedures. Usually, the team leader administers medicines and monitors parenteral fluid therapy for all patients assigned to the team and, so, she or he can confer with the patients' physicians, transcribe doctors' orders, and assist other team members as necessary.

A team leader who is a skilled clinician and an effective group leader coordinates team members' activities, so that the group's total effort surpasses the sum of their individual contributions. Unfortunately, there is insufficient time in the undergraduate nursing curriculum for students to acquire high-level group leadership skills. In addition, on entry to practice, nurses concentrate on acquiring clinical nursing skills rather than group leadership skills. Some older nurses have worked so long under functional methods of assignment that they are reluctant to accept responsibility for guiding the work of technical and ancillary employees. If none of the professional nurses on a unit possesses the leadership, planning, and communication skills required for team leading, available staff nurses should be enrolled in an in-service program that includes both theoretical instruction and guided practice in team-leading activities.

Improperly constituted nursing teams are ineffective. When a nursing unit is short staffed, each team may be too small (two or three members) to permit a logical division of labor among members. When a two- or three-member nursing team is assigned more patients than they can safely care for, the leader is tempted to divide care tasks arbitrarily among members in order to complete the work as quickly as possible. The leader may assign the professional team member to care for all patients who are bedridden or receiving intravenous fluids and the technical and ancillary member(s) to care for ambulatory, preoperative, and predischARGE patients. When care duties are distributed simplistically, with no regard for patients' or employees' needs, team members cannot support one another or

benefit from each other's experience. At its best, team nursing combines different categories of personnel, so that professional workers provide more demanding aspects of care, and technical and ancillary workers are supervised in providing protective care by a professional nurse who understands how to meet patients' and caregivers' needs simultaneously. At its worst, team nursing is little more than functional nursing on a small scale. If a team leader consistently assigns duties among team members on a functional basis—one to administer medicines and treatments to all patients on the team, one to bathe all patients, one to make all patients' beds, one to take vital signs and empty urine containers for all patients—the result is not coordinated team effort, but assembly-line production.

Primary Nursing Method

The primary nursing method of assignment works best in an agency with an all-professional nurse staff. In this method, each nurse is given total responsibility for planning, executing, and evaluating nursing care for a small caseload of four to six patients. The primary nurse is responsible for assessing each patient's health condition, life situation, and care needs; for planning care to satisfy those needs; for delivering care according to plan; for coordinating care given by other members of the health team (physician, nutritionist, physiotherapist, respiratory therapist, etc.); for evaluating patient response to nursing care; and for modifying the care plan as needed. In primary nursing, one nurse on each shift provides total care for the same patient day after day and round-the-clock care is coordinated by the patient's primary nurse (Hegyvary, 1982). The patient's primary nurse is responsible for the patient's total nursing care throughout his or her stay, after discharge, and during subsequent admissions to the facility.

An all-professional nurse staff is preferred for primary nursing for two reasons. First, when nurses are relieved of responsibility for supervising ancillary workers, more of their time is

devoted to patient care. Second, a sophisticated understanding of biological science, medical therapeutics, and nursing theory is needed to carry out primary nursing responsibilities: physical and psychological assessment, care planning, therapeutic intervention, coordination, and evaluation. Professional preparation provides nurses with these abilities. A technically prepared nurse may acquire such abilities through appropriate instruction and prolonged practice. Most ancillary workers would be unable to develop such skills, even with lengthy in-service training.

A primary nurse has overall responsibility for assigned patients' care. Therefore, he or she must minister to assigned patients when on duty and arrange for another nurse to care for them during off-duty hours. The primary nurse appoints a nurse from each shift to serve as "associate nurse" for the primary nurse's patients and teaches the associate how to care for the patients. During her or his day off, a primary nurse may telephone the associate nurse to check on a patient's condition or make suggestions for managing specific problems.

When an agency implements primary nursing, nurse managers should understand that change in the staff nurse role necessitates complementary change in the head nurse role. Under functional and team nursing assignment, head nurses tend to use an authoritarian approach in directing staff nurse activities. Consequently, in functional and team nursing, staff nurses view the head nurse as the final authority on questions of nursing theory and practice. In contrast, primary nurses cannot function appropriately under authoritarian supervision. The primary nurse is better informed about her or his patients' needs than any other nursing staff member; so the primary nurse directs and evaluates all care given to her or his assigned patients. There is no need for a controlling head nurse in a primary nursing unit. In supervising primary nurses, the head nurse should act as a coach, resource person, and quality-control advocate. To portray these roles convincingly, the

head nurse should have prior experience as a primary nurse.

Modular Nursing

Modular nursing assignment is a variant of primary nursing that is used when the nursing staff includes technical and ancillary as well as professional workers. Modular nursing is similar to team nursing, because professional and nonprofessional employees cooperate in caring for patients under the leadership of a professional nurse. Modular nursing is similar to primary nursing, because each pair or trio of nursing personnel is responsible for the care of the patients in their caseload from admission to discharge, following discharge, and during subsequent admissions to the agency.

For modular nursing to be effective, extreme care must be used in constructing each professional-nonprofessional worker pair or trio. If unit staff includes equal numbers of professional and practical nurses, each module should consist of one or two professional and one or two practical nurses, and the head nurse's challenge is to link workers with complementary abilities and personalities. If the unit staff includes aides as well as RNs and LPNs, a professional nurse who is linked with an aide must take a stronger leadership or coaching role with the partner than an RN who is linked with a practical nurse.

In modular nursing the two- or three-worker team is assigned full responsibility for a caseload of 8 to 12 patients who are housed in one section of the unit, where necessary care equipment and supplies are conveniently located nearby (Magargal, 1987). As with primary nursing, the worker pair or trio arranges for another pair or trio to care for their assigned patients on alternate shifts and days off.

Although two or three workers are assigned to each module, the greatest responsibility for the care of assigned patients falls on the professional nurse. The professional nurse is also responsible for guiding and teaching nonprofessional workers in the module. Consequently, the

professional nurse role in modular nursing is more difficult than in primary nursing.

Nursing Case Management

Nursing case management is the set of activities undertaken by a single nurse to mobilize, monitor, and evaluate all resources used by a patient during the total course of an illness (Zander, 1988a). Nursing case management, which Zander characterizes as a "second generation primary nursing," was implemented at New England Medical Center Hospitals, Boston, Massachusetts, in 1985 as a method for balancing emphasis on health care costs and quality. Objectives of nursing case management include:

1. Establishing and achieving a set of "expected" or standardized patient care outcomes for each patient.
2. Facilitating early patient discharge or discharge within an appropriate length of stay.
3. Using the fewest possible appropriate health care resources to meet expected patient care outcomes.
4. Facilitating the continuity of patient care through collaborative practice of diverse health professionals.
5. Enhancing nurses' professional development and job satisfaction.
6. Facilitating the transfer of knowledge of expert clinical staff to novice staff (del Tognio-Armanasco et al., 1989; Zander, 1988a).

Under nursing case management, when a patient is admitted to a health agency for treatment of an illness episode, a staff nurse from one unit where the patient will receive care is designated the patient's case manager. This case manager has responsibility and authority for planning, implementing, coordinating, and evaluating care for the patient throughout the entire episode of illness, regardless of the patient's movement among various units and services, such as emergency room, surgical unit, operating room, recovery unit, and surgical clinic. The case man-

ager uses two tools, case management plan (CMP), and critical path diagram (CPD) to design, map, track, monitor, and adjust the patient's course through the care-treatment process (del Togno-Armanasco et al., 1989; Zander, 1988b). The CMP is a multicolumn plan with accompanying time line that includes medical and nursing diagnoses, desired care outcomes, intermediate daily goals to support each outcome, and the daily activities required of nurses, physicians, and other caregivers to achieve intermediate goals. The CPD is an abbreviated, one-page version of the required physician and nurse actions listed in the CMP, together with the exact date on which all key events must occur to achieve the desired outcomes by the target date (Zander, 1988a). The case manager evaluates the patient's progress toward care or treatment goals daily by comparing signs, symptoms, and assessment data against information in the CMP and CDP, then tracking variances from the expected course of progress.

Design specifics of a nursing case management system differ according to the characteristics of the care setting. Case managers in a rural setting work under minimal supervision and with scant interdisciplinary peer support (Parker et al., 1992). Case management for deinstitutionalized chronically mentally ill patients includes case finding, case screening, and patient linkage to community-based philanthropic and volunteer groups (Pittman, 1989). Hospital case managers chair the patient's multidisciplinary care team and act as patient advocates to balance care-quality needs against agency concerns for cost containment (Bair et al., 1989; Zander, 1988a). Regardless of system variations and characteristics of care settings, however, nursing case management has been effective in lowering nursing personnel costs, improving patient-care quality, and increasing nurses' job satisfaction (Bair et al., 1989; McKenzie et al., 1989; Rogers et al., 1991; Stillwaggon, 1989; and Zander, 1988a).

MEMO CAPSULE

Care-Delivery Methods

- **Functional:** Task specialization, care fractionation
- **Team:** Links professionals and auxiliaries for mutual support.
- **Primary:** Care continuity and job satisfaction, but expensive.
- **Modular:** Nurse cares for patients in specified territory.
- **Case:** Maximizes care quality, controls costs.

PREDICTING STAFFING NEEDS

It is the responsibility of a nurse manager to determine the number of each category of worker that will be needed to care for the expected types and numbers of patients in the unit. Several approaches can be used to predict staffing needs. In the older, descriptive method, experienced nurses establish nursing care standards for each type of patient to be cared for. Recommended nurse-patient ratios and forecasted patient census are used to calculate the number of personnel of each category that should be allocated to the unit to deliver care according to standard.

A second method for calculating staffing needs is the industrial engineering approach. With this highly technical approach, nursing tasks are timed, work flow is analyzed, and tasks are organized for maximum efficiency. Observers measure the mean frequency and duration of each task. These averages and patient census data are used to calculate the appropriate numbers of each employee category to perform the required nursing tasks for expected patient load.

The third method for determining staffing needs is the management engineering method. In this more comprehensive approach behavioral objectives are written for a nursing division, and a systems diagram is constructed to illustrate how staffing activities relate to other management functions: planning, organizing,

leading, and controlling. Nursing practice criteria are written for each expected patient type, and personnel mix and nurse-patient ratios are based on average task frequency and difficulty. Finally, the required numbers of personnel in each category are recruited, selected, oriented, and scheduled to maximize unit nursing goals.

Rationale for Proper Staffing

Growing federal and state budget deficits have exerted pressure on health care administrators to contain costs. In most health agencies personnel salaries comprise the largest budget item, often amounting to 60 percent of total operating costs (Lafferty, 1987). In many agencies the nursing personnel budget represents 60 to 70 percent of the total personnel budget (Lehman and Friesen, 1977) (Fig. 12-1). When personnel funds are restricted, initial cuts are likely to occur in the nursing department for two reasons. First, the nursing budget is so large that a small-percentage reduction produces considerable dollar savings. Second, the nursing group is less vocal and less powerful than other costly employee groups, such as agency administrators and physicians.

To control nursing personnel costs, the manager of each nursing unit must hire and assign the smallest number of each worker classification capable of providing safe, effective care for

patients. To use personnel economically, the manager must daily adjust the supply of available employees to meet changing patient care demands. Patient census and acuity change constantly, so that a unit manager must forecast patient census by shift, day, week, and month and then continuously update the forecasts to account for unforeseen events.

It is important for nurse managers to use staff appropriately, not only for financial purposes but also for morale purposes. Nursing personnel are demoralized by an imbalance between workload and staff size. Working on a chronically understaffed unit predisposes workers to frustration, fatigue, and disillusionment. Working on a chronically overstaffed unit leads to boredom and interpersonal friction. Working on a unit that is alternately under- and overstaffed causes irritation, uncertainty, and confusion. Working in a unit with an improper mix of professional and nonprofessional workers creates role confusion, communication problems, and time waste.

Even when appropriate types and numbers of personnel are assigned to a nursing unit, employees will be demoralized by a frequent change in work group membership. Filling gaps in a primary work group by floating nurses back and forth between units prevents continuity of patient care and discourages cooperation

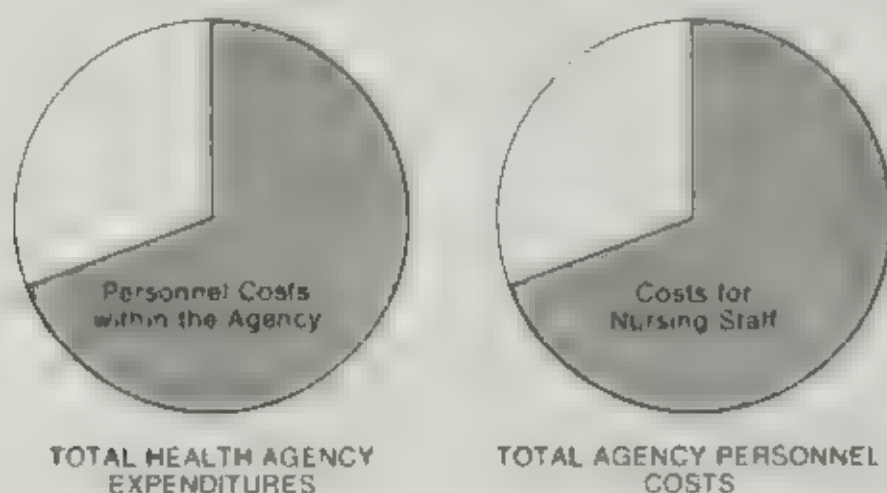


Figure 12-1 Relation of nursing personnel costs to other institutional costs within a health agency.

among caregivers. The method used to adjust staff size to workload change should be designed to provide the greatest possible stability of the primary work group.

SYSTEMS APPROACH TO STAFFING

A systems approach is useful in deciding the optimal numbers and categories of personnel for each patient care unit. Basic components of any system are inputs, process, outputs, controls, and feedback loops (Hanson, 1982).

In a staffing system, inputs are information about average daily patient census, complexity of patients' care needs, and staff members' capabilities. Each input can be refined. If patients are classified according to dependence, one system input could be the percentage of patients needing self-care, partial care, total care, and intensive care. Input about the complexity of patients' care needs could be the type and frequency of nursing interventions for patients in each care category and the average daily staff time spent with a patient in each category. Input about staff capabilities include the knowledge and skill level of each worker or worker category and the activities that staff in each category may perform.

Process for the staffing system includes updating patient census forecasts on a daily or shift-by-shift basis; daily assessing the proportion of unit census in each patient classification or acuity level; orienting each employee to job responsibilities, time schedule, and patient care assignments; and calculating the number of employees in each position to be budgeted for each nursing unit.

Outputs for a staffing system may include personnel roster of nursing personnel permanently assigned to each nursing unit; total fund allocations to overtime and registry accounts for each nursing unit or division; personnel on-off duty schedule for each nursing unit for four- or eight-week intervals, and personnel forecast plan indicating the number of each personnel category needed to care for stated increments above and below expected patient census.

Controls for a staffing system might include JCAHO or state department of health regulations governing desirable nurse-patient ratios and employee qualifications; labor contracts limiting "floating" of personnel among nursing units; and federal laws requiring equitable assignment of undesirable shifts among male and female employees.

Feedback loops in a staffing system might include computerized reports indicating the time elapsed between duty shifts for each unit employee; how recent each employee's assignment to weekend duty, call duty, or shift rotation was and the number of holidays on-off duty for each employee during the fiscal year (Fig. 12-2).

PREDICTING NURSING WORKLOAD

To increase staffing effectiveness, the nurse manager must optimize the balance between workload and the number of assigned personnel. To do so, a manager must be able to predict the unit's work volume enough in advance of each shift that needed staff can be mustered for duty.

It is difficult for a head nurse to accurately predict unit workload, because most agencies experience unexpected, as well as expected, seasonal variations in patient admissions and discharges. Generally, an increased number of labor patients are admitted to hospitals following a sudden drop in barometric pressure; a higher number of persons suffer falls and fractures during icy weather; the incidence of violent trauma increases over long holiday weekends; and suicide attempts are common during the Christmas-New Year holiday season (Fig. 12-3).

Patient Census

In most health care agencies, patient census is computed on daily, monthly, and annual bases. In some agencies census data are used to predict future workload and request adjustments in funds for temporary nursing personnel. Health agencies are dynamic in that the workload changes in response to scientific develop-

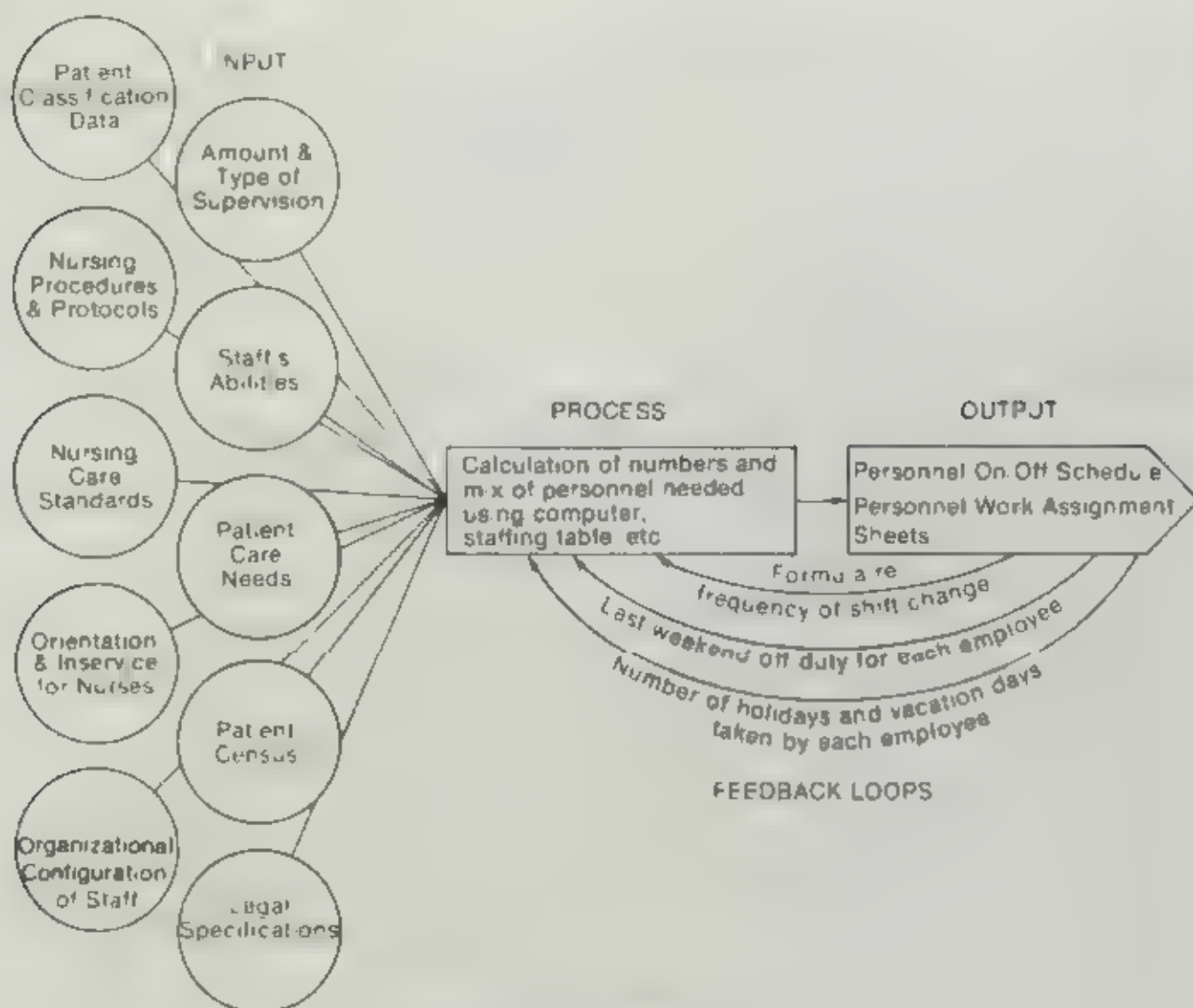


Figure 12-2 Staffing system.

ments, community events, power shifts within the agency, and movement of employees into and out of the organization. Agency change may be so rapid that the previous year's census data have little relation to current and future workload (Bracken et al., 1985; Smith, 1985).

Experts claim that the average daily hospital census is roughly the product of the average admission rate and the average length of stay. Concomitant variations in admission rate and length of stay could maintain constant census on a nursing unit, while allowing work volume to change markedly. For example, a change in patient population from "regular" surgical pa-

tients to ambulatory surgery patients on a surgical unit would cause increased nursing workload, even if the daily average census remained constant. With change from inpatient to outpatient surgery, the number of patients admitted and discharged daily would have to increase to maintain the same daily average census. Generally, more nursing care is required to admit, provide total care, and discharge a patient in a single day than to adjust care from total to intermediate to rehabilitative measures over several days, as is customary with long-term, inpatient care.

Furthermore, when a nurse must interact



Figure 12-3 Changes in nursing workload result from numerous external factors.

with a large number of patients in a short time, the nurse's psychological workload increases. A nurse who works in an ambulatory surgical unit, emergency room, or crisis intervention center is called on to make and break close relationships with a large number of patients every day. On each workday, the nurse confronts an entirely new group of patients (and significant others). To assess, diagnose, and care for each new group of patients under strict time limitations, he or she must attend carefully and invest deeply in each new relationship. After interacting with a patient in an intimate, intense fashion for a few hours, the nurse must quickly disengage attention from that patient to become psychologically "available" for involvement in another intense, short-term relationship with the next patient.

The psychological cost of a continuing series of brief, intense relationships is high and should be considered when calculating the work volume to be performed by each nurse in an emergency or ambulatory care unit.

If patient census is used to forecast nursing workload and patient census is forecasted by multiplying admission rate by average length of stay, expected admission rate should be forecast for the same period that nurses' work schedules are preposted. In hospitals where reservations are made for elective admissions, elective admissions should be predicted by adjusting the number of admission reservations by the expected cancellation rate. O'Connor and Eturd (1978) created a more sensitive predictor of admissions by plotting the number of admission reservations against a ratio of reservations to

admissions. Using this method they were able to accurately predict admission numbers for all periods except those containing a major holiday.

Typically, health agencies experience the following seasonal variations in patient census: census falls in November–December; increases in January; falls in February; increases in May; decreases in July–August. Apparently, people postpone treatment and avoid hospitalization during winter holiday and summer vacation periods. A recurring pattern of census variation can be detected by a three-to-five-year study of census data and used to predict nurse staffing needs within the facility. When the amount of census decrease during Christmas and summer vacation periods is known, nurse managers can grant vacation and holiday requests for a maximum number of staff without jeopardizing care quality for the patients who remain within the facility.

Before the current pressure for cost containment, Wolfe and Young (1965) claimed that hospital bed occupancy rarely exceeded the average daily census plus four times the square root of that average. However, to be cost-effective, a manager should never staff for peak census, because doing so allows money to be squandered through frequent overstaffing. On the other hand, if staffing is based on average patient census, the number of personnel on duty will be incorrect about as often as it is correct, because many instances of higher-than-average and lower-than-average census contribute to the computation of average census.

Patient Care Needs

In predicting nursing workload a manager must calculate not only the total number of patients to be cared for but also the proportion in each category (self-care, minimal care, full care, intensive care), because care needs vary from one category to another. To quantify workload, patient care needs must be quantified. Simply put, the total care needs for each patient are the sum of the patient's needs for direct hands-on

care, for indirect or administrative care, and for health teaching. Direct nursing care is given by nursing personnel while working in the patient's presence and related to the patient's physical and psychological needs. Administrative or ministerial care are those activities undertaken on the patient's behalf but removed from his presence that relate to the patient's environmental, social, and financial welfare. Health teaching encompasses all efforts by nursing personnel to inform, instruct, and motivate patient and family about care needs following discharge.

MEMO CAPSULE

Care Categories

- Direct: Hands-on care.
- Indirect: On patient's behalf, without direct contact
- Ministerial: Establishing, regulating care environment.
- Health testing: Individualized instruction in self-care

Following is one approach that could be used to determine the care needed by patients in a particular care unit and the number of nursing personnel needed to administer that care to predicted numbers of patients. First, a list is drawn up of the different types of patients to be cared for in the unit. In an already functioning unit, previous census data can be used to forecast future patient census. In a newly established unit, the head nurse should consult community health statistics or outpatient clinic data to predict possible patient census for the unit. The types of patients expected to be admitted may be classified by diagnosis, age group, physiological problem, or some other characteristic. A clinical nurse specialist should outline the nursing activities needed to care for patients in each category. In addition, the specialist should indicate how many times per day on average each

activity would have to be performed. The specialist might forecast that a specific wound dressing should be changed daily, urinary output should be totaled three times a day, and central venous pressure should be measured hourly.

A trained observer should observe a sample of nursing employees to determine the average time required to perform each nursing activity listed—both direct nursing care activities and ministerial activities. Finally, the clinical nurse specialist or manager should calculate the average daily nursing time required by a patient of each type, multiply average daily nursing time by the number of such patients expected, and sum the time products for all types of patients to be cared for. The time required to perform each nursing procedure differs from one agency to another, and time and motion studies of common nursing activities must be carried out in each health agency before calculating staffing requirements.

Setting time standards for nursing tasks is a time-consuming activity, because there are many tasks to be considered. To set time standards for direct care, a manager must determine the time spent in taking a health history; performing a physical examination; feeding a patient; providing personal hygiene; assisting a patient onto a bedpan or commode; taking vital signs; measuring central venous and pulmonary capillary wedge pressure; turning the patient in bed; moving the patient from bed to chair; administering oral and parenteral medications; administering oxygen by cannula, catheter, and mask; providing tracheobronchial toilet; inserting and irrigating a nasogastric tube; inserting a urinary catheter; analyzing a urine specimen; changing a wound dressing; applying moist packs; providing postural drainage; and so on.

To set standards for ministerial care, the manager must determine the time spent in writing a nursing care plan and case management plan; conducting a multidisciplinary patient care conference; recording progress notes on a patient record; making a social service referral;

securing services of a private duty nurse; constructing a discharge plan; and negotiating facilities for postdischarge care coordination.

To set the time standards for patient and family teaching, the nurse must determine the time spent in teaching people singly and in groups to test blood glucose; administer insulin; provide protective foot care; instill eye or ear drops; change a wound dressing; perform postural drainage; irrigate a colostomy; cleanse and change a tracheostomy tube; administer gastrostomy feeding; catheterize the bladder; empty a drainage bag; administer an enema; perform range-of-motion exercises; bandage an extremity; bind cast edges; apply a sling; identify symptoms of disease complications and drug toxicity; and the like.

Data care

There are two ways to quantify direct nursing care activities, self-reporting by the nurse giving the care, and observation of the caregiver by a trained observer. Of the two methods, self-reporting is less expensive, because data are collected by regular staff members and given to the manager or researcher for analysis. The disadvantage of the self-report method is the inability of some nurses to report their activities objectively and time them accurately. Nurses find it difficult to self-report job activities, because they become so engrossed in patient care that they lose track of the time spent in specific activities. There is also a tendency to overestimate the time spent in highly valued activities, such as patient teaching, and underestimate time spent in undervalued activities, such as gathering supplies.

Observation of nursing care by a nonparticipant observer is a more effective means of gathering data about type and the timing of patient care, because the report is not biased by self-interest. However, to ensure objectivity and reliability, each observer must be taught what to look for, how to interpret various nurse behaviors, and how to record observations.

Data collection by self-report and observer report differ in an important regard. When the

nurse reports work activities performed and time spent in each activity, data can be gathered about the purely intellectual aspects of the work, such as planning and evaluating care, as well as the physical aspects of work. When activities are recorded by another person, only the nurse's overt, observable behavior can be reported. An observer cannot know whether an apparently thoughtful nurse is thinking about alternative approaches to a nursing problem or contrasting a patient's care outcomes with care goals. Furthermore, if the observer asks an apparently thoughtful nurse to describe her or his thought processes, so that the observer can classify the nurse's mental activity, recorded care times are artificially lengthened by the time spent in observer's questioning and nurse's response.

It is difficult to determine the nursing time required to care for a patient in each diagnostic category, because patients require a different type and amount of care at different stages of illness. Variations in age and health cause two patients with the same disease to differ in re-

sponse to illness, speed of recovery, and need for care. To account for variations in patient response to illness when staffing the nursing unit, most agencies use a patient-classification system for short-term forecasting of nursing workload.

Patient-classification systems. A patient-classification system is a means of categorizing present patients according to care needs that a nurse can clinically observe (Edwardson, 1985). Patient classification systems were introduced as an objective method for nurse staffing when managers recognized that patients' needs for care differ more from their varying dependency needs than from their medical diagnoses. The type of care needed by a comatose diabetic patient more closely resembles that needed by a comatose uremic or comatose stroke patient than it does the care needed by a well-regulated diabetic patient with retinal degeneration. All comatose patients are wholly dependent on caregivers for the protection of vital life-support systems. (For greater detail on patient-classification systems, see also Chapter 15.)

In most prototype patient-classification systems patients are divided into three or four categories on the basis of their dependency needs and the level of personnel needed to satisfy those needs. A typical four-category system includes minimal care, partial care, total care, and intensive care categories. In a three-category system total care and intensive care categories are combined.

Patients in the minimal care category are capable of carrying out all activities of daily living as long as a nurse provides necessary equipment and supplies, such as meal trays, bed linen, medications, and dressing materials, and performs care planning and discharge planning for the patient. A patient who enters a hospital for a complex diagnostic workup that includes numerous laboratory, x-ray, and other tests may be a self-care patient during all or most of the workup.

A patient in the partial care category may be able to feed, bathe, toilet, and dress without help

MEMO CAPSULE

Components of Nursing Workload

- Number of patients admitted per day, month, year
- Number of patients with each medical diagnosis
- Number of patients with each nursing diagnosis
- Level of disease severity for each patient
- Intensity of nursing needed by each type of patient
- Average length of stay for each type of patient
- Number of nursing measures for each type of patient
- Average time required for each nursing measure

but requires some help from nursing personnel for special treatments or selected aspects of personal care. A partial care patient might require wound dressing, bladder catheterization, colostomy irrigation, intravenous fluid therapy, intramuscular or subcutaneous injections, or chest physiotherapy. A patient being readied for surgery or convalescing from surgery may be classified as a partial care patient.

A patient in the total care category will need help with all activities of daily living (bathing, toileting, grooming, feeding, moving about), will be "confined" to bed, and require special treatments, wound dressings, and intravenous fluids. The patient will require frequent, but not continuous, attention from caregivers and generally will be conscious and oriented, can cooperate with caregivers, and follow directions.

An acutely or critically ill patient who is liable to serious injury or death without immediate skillful intervention to avert threat and adjust treatment can be categorized as needing intensive care. A patient in cardiogenic shock who is maintained on a respirator, parenteral vasopressors or vasodilators, and continuous electrocardiographic monitoring requires intensive care. A patient who has not fully recovered from the effects of a general anesthetic is in need of intensive care, because of the risk of respiratory center depression and cardiovascular collapse. A cirrhotic patient who hemorrhages from esophageal varices needs intensive care to prevent the aspiration of vomitus and detect the signs of impending shock, asphyxia, and coma. A patient with multiple system failure who is placed on a respirator, given hyperalimentation treatments, and subjected to continuous hemodynamic monitoring requires intensive care to integrate ministrations of various specialists.

In units where the majority of patients are chronically ill and changes of condition occur gradually, it is customary to classify patients once daily as a basis for staff planning. In units with acutely ill patients whose condition may change suddenly, it is customary to reclassify

patients on each shift in order to assign staff appropriately.

Patient profiles differ from one nursing unit to the next, and the head nurse of each unit should modify the definition of the four care categories to tailor the patient-classification system to the patient characteristics peculiar to each unit. For a surgical intensive care unit using a prototype patient-classification system, the definition of patient characteristics used in assigning patients to self-care, partial care, total care, and intensive care categories might be as follows:

Category IV. Requires continuous nursing observation and intervention. Requires frequent and intensive medical observation and treatment. An immediate postoperative patient or a postarrest patient. Maintained continuously on a respirator with high positive end-expiratory pressure. Respiratory muscles paralyzed or reflexes obtunded by narcotics. Arterial and pulmonary artery lines in place. Receiving transfusions, hyperalimentation, or multiple intravenous fluids. Comatose, obese, confused, or uncooperative. Unstable vital signs, coagulation problems, or impaired renal and hepatic function. Isolated or requires frequent major dressing change or dialysis.

Category III. Requires frequent, close nursing observation and intervention. Requires moderate medical intervention. On respirator without high positive end-expiratory pressure or in weaning process. Arterial line or central venous pressure line in place. Frequent intravenous medications, fluids. Requires frequent changes of position. Requires frequent dressing changes. Restless, disoriented, or somnolent. Stable vital signs.

Category II. Requires moderate nursing observation and intervention. Requires minimal medical treatment. Artificial airway requiring suctioning. Intravenous fluid therapy. Arterial line in place. Stable vital signs and stable psychological status. Dressing changes every shift.

Category I. Requires minimal medical treatment. Requires minimal nursing intervention

but close observation. Stable vital signs and psychological status. One intravenous line. Oxygen by mask. Good renal and hepatic function.

When care categories have been carefully defined and nurses are trained to use the agency's patient-classification system, staff nurses can acquire a high degree of reliability in categorizing patients according to their care needs. When patients are classified into care categories and the amount of care needed by patients in each category is measured, there is a clear difference in the amount of time required to care for patients in different categories. This demonstrates the value of a classification system in predicting nursing workload. Twenty years ago Minetti and Hutchinson (1975) determined that the "average" patient needed four hours of nursing care per day, an ambulatory self-care patient required half as much nursing time, a partial care patient needed three-quarters as much time, a total care patient needed one and one-half times as much time, and an intensive care patient needed twice as much time. The average acuity of hospitalized patients has risen in recent years, so patients in all care categories now require a greater amount of nursing care time. When patient census remains constant in a particular nursing unit, a change in the amount of direct care needed per patient or change in proportion of patients in each care category will have profound staffing implications. In a 10-bed coronary care unit constantly filled to capacity, the implementation of continuous hemodynamic monitoring for all patients might increase direct nursing care needs by one hour per patient per day, increasing nursing workload by 10 hours per day. Thus, all other factors remaining unchanged, an additional 1.25 full-time equivalent nursing staff members per day would be needed to perform the additional tasks involved in continuous hemodynamic monitoring.

The growing trend toward consumerism has focused increased attention on the staff nurse role. According to Zwolski (1989), nursing is becoming more technical, that is, it incorporates

more standardized methods for accomplishing care tasks, so that a longer, more complex educational process is needed to prepare for nursing practice. To ensure competence in a demanding clinical nurse role (for example, primary nurse or nursing case manager in a specialty or critical care unit), many nurses obtain graduate education as clinical nurse specialists.

Indirect care

After the manager determines how many hours of direct nursing care per day are required by each patient in the unit, the manager must calculate the time required for indirect care activities. Indirect care includes activities undertaken in the patient's behalf but apart from the patient's presence, such as care planning; assembling supplies and equipment; consulting with other health team members; writing and reading patient's health records, reporting patients' conditions to coworkers; and constructing discharge plans. Generally, a patient's indirect care needs do not vary with the intensity of illness or dependency on caregivers and are assumed to require the same amount of time for all patients in the unit.

In one midwestern hospital an average of 38 minutes per patient per day was spent by nursing staff in indirect care activities (Meyer, 1978). In a 20- to 30-bed unit of an East Coast hospital, Wolfe and Young (1965) found that the time required for all nursing activities other than direct care remained constant at 20 hours for the day shift, regardless of the number of patients in each classification or the number of nurses on duty. Time needed for ministerial care in the latter hospital was greater than that in the former agency, which demonstrates the need to perform time and motion studies in each agency to set time standards that reflect local conditions. Some factors, such as the educational level of personnel and method of assigning nursing personnel (functional, team, primary, modular), affect the amount of time needed to plan care. The design of the physical

plant and the manner of provisioning nursing units affect the time needed to gather supplies and equipment. Characteristics of organizational structure (deep or flat hierarchy, line, line and staff, or matrix structure) influence the time spent by the nurse in communicating patient information to others. The number and type of clinical records, manual or computerized charting, and separate charting by discipline or problem-oriented medical record, determine the amount of nurse's time spent reading patient records and recording nursing interventions.

Health teaching

The final measure needed to calculate the daily nursing care needs for patients in each category is the time spent in health teaching. Instruction must be individualized to fit each patient's diagnosis, treatments, and life circumstances. However, all patients need instruction on the following subjects: activity level, medications, treatments, medical and nursing follow-up, and supportive community agencies. Because health agencies differ in the methods and materials they use for patient teaching (individual or group instruction, ad hoc approach or prescriptive use of prepared instruction modules), each nursing department must measure the teaching-time requirements for each nursing unit. One agency found an average of 14.5 minutes per patient per day was spent in health teaching and emotional support (Meyer, 1978).

Work Sampling

Work sampling is an industrial engineering method used to measure the time spent in the three types of nursing activity (direct care, indirect care, health teaching). Work sampling is based on the assumption that a random sample of an employee's activities demonstrates the same general pattern as the individual's total work activities (Minyard, et al., 1986). To prepare for sampling activities of a particular employee category, all activities performed by persons in that category are grouped into logical categories, data sheets are prepared, and deci-

sions are made about the number of employees to observe, the time period for making observations, and the frequency of observations of each worker. Next, observers are trained to correctly identify behavior in each category and record observations. Employees are informed of study purpose, methods, subjects, and duration. Data are collected, organized, and analyzed. Conclusions are drawn and reported to the nurse manager or administrator. Conclusions from the staffing studies (time and motion, work sampling) should be shared with nurses in the agency where the data were gathered, because these employees will be asked to implement recommendations that result from study findings.

DETERMINING PERSONNEL LEVELS AND TYPES

After it is determined what type of care will be needed by patients in a nursing unit, managers or administrators must decide which level of personnel should perform each nursing task. To make this decision, the nurse manager must be familiar enough with professional nurse, practical nurse, and attendant training programs to predict the knowledge base, skill level, and work attitudes of graduates of each program. Matching patients' care needs with employees' abilities maximizes worker productivity and patient satisfaction.

There is evidence from several studies that an all RN staff is more cost-effective than a mix of professional and nonprofessional workers (Holloran, 1983; Osinski and Powals, 1980; Sovie et al., 1985). The difference is due in part to the fact that RNs generally have less downtime, that is, unproductive time, than LPNs or aides. Unproductive time is time spent on meals, breaks, personal activities, and delays. Some industrial engineers accept 16 percent as a reasonable figure for worker unproductive time. In one medical center hospital, RNs had 8 percent of unproductive time, whereas aides had 28 percent of unproductive time (Millman, 1978). In a university hospital, RNs had 11 percent of unproductive time, whereas LPN IIs had 17 percent, LPN Is had 23 percent, and aides had 24

percent of unproductive time. These findings, if representative of hospitals in general, suggest that a higher personnel skill mix will probably be more cost-effective because of the higher proportion of productive time for professional-level workers. In addition, the more technical a work system, such as nursing, becomes, the greater the need for professional-level workers to unify work means (techniques) and ends (philosophy and mission) (Zwolski, 1989). Nevertheless, administrators who eliminate aide and LPN positions and replace them with (fewer) RN positions in an effort to increase cost effectiveness must weigh the effect of staff mix on RNs' job satisfaction. A study by Betz and O'Connell (1987) revealed that RNs found it difficult to practice primary nursing in one agency because of the lack of auxiliary personnel to perform necessary "scut work."

Nursing has become increasingly specialized and complex because of the profession's growing scientific base and the rapid expansion of health care technology. In 1973 the American Nurses' Association implemented its certification program to provide recognition for professional achievement in a defined functional or clinical area. The American Nurses' Credentialing Center provides programs for certifying generalists in 10 areas, nurse practitioners in 5 areas, clinical specialists in 5 areas, and nurse administrators at 2 levels. To qualify for certification, a nurse must hold an active RN license; have a specified amount of practice in the relevant clinical or functional area; have postbasic nursing education in the field of choice; document endorsement by work peers; and receive a passing score on a standardized certification test of requisite knowledge and skills. In some agencies certification qualifies a nurse for a wage differential. In some states, certification makes a nurse eligible for third-party reimbursement for services (American Nurses' Credentialing Center, 1992). At some point in planning a health agency's nurse staffing system, the vice-president of nursing and nurse administrators should decide whether to make certification a

required or recommended qualification for appointment to selected positions. When certification as a generalist, nurse practitioner, or clinical specialist is recommended but not required for a position, administrators should decide whether to provide a salary increment for those nurses who are or become certified. Of course, funds for such salary increments must be provided by the nursing department budget.

In recent years, the pressure for cost containment has necessitated nursing staff cutbacks in some hospitals, nursing homes, and public health nursing agencies. Some agencies have reduced the nursing personnel budget by eliminating positions. Others have replaced some RN positions with lower salaried LPNs or aides. Fortunately, the structure, process, and outcome standards used by various regulatory agencies directly or indirectly dictate the required numbers and types of nursing personnel. These external standards are helpful in preventing fiscally motivated nursing manpower reductions (decreased skill level or numbers) from jeopardizing patient welfare.

The JCAHO's 1992 *Accreditation manual for hospitals* (JCAHO, 1992) includes several nursing standards that indirectly prescribe nurse staffing requirements:

- 1.1 Each patient's need for nursing care related to his admission is assessed by a registered nurse . . . either at time of admission or within a time frame . . . specified in hospital policy.
- 2.1 Each member of the nursing staff is assigned clinical or managerial responsibilities based on educational preparation, applicable licensing laws . . . and an assessment of current competence. . . .
- 3.4.1 There are sufficient qualified nursing staff members to meet the nursing care needs of patients throughout the hospital.
- 3.4.2 Nurse staffing plans for each unit

define number and mix of nursing personnel in accordance with current patient care needs.

- 3.4.2.1 In designing nurse staffing plans the hospital gives appropriate consideration to utilization of RNs, LPNs, nursing assistants, and other nursing personnel, and to the potential contribution these personnel can make to the delivery of efficient and effective patient care.

- 4.1.1 Registered nurses prescribe, delegate, and coordinate the nursing care provided throughout the hospital.

In long-term care settings, where the majority of patients are chronically, rather than acutely, ill, the nursing personnel mix is likely to contain a minority of professional employees and a majority of technical and ancillary personnel. The *Accreditation manual for long-term care* (JCAHO, 1991) includes several standards that indicate the required number and types of nursing personnel.

- SC 4.2 Nursing care is provided 24 hours a day, seven days a week.
- SC 4.2.1 Nursing care is supervised by a registered nurse on the day tour of duty seven days a week.
- SC 4.2.2 A registered nurse assesses each patient to determine whether the patient requires the services of a registered nurse.
- SC 4.2.2.1 If any patient requires the services of a registered nurse, at least one registered nurse who is currently licensed in the state . . . is on duty on each shift seven days a week. . . .
- SC 4.5 Registered nurses and licensed practical nurses, trained nursing assistants, and clerical assistants are assigned duties consistent with their education and experience.

- SC 4.5.1 Nursing assistants have completed training and have demonstrated competence in the duties assigned, according to organizational policy and applicable regulations.

- SC 4.6 Nursing care is supervised on all shifts.

- SC 4.6.1.1 The director of nursing designates a charge nurse for each shift.

- SC 4.7 The charge nurse is either a currently licensed registered nurse or a currently licensed practical nurse who has experience in nursing services administration and has had supervisor training and experience in gerontologic, rehabilitation, or psychiatric nursing.

DETERMINING THE NUMBER OF STAFF

Before a manager can decide on the number of professional, technical, and ancillary personnel who should be budgeted for the nursing unit, he or she must first calculate the number of workers from each category needed on duty daily to perform the required nursing tasks. When each employee is absent an average of 8 holidays, 15 vacation days, and 6 sick days per year, there must be approximately three full-time employees on payroll for each two positions to be staffed daily. An agency with more liberal holiday or vacation allowances or higher sickness or absence rates will need a higher ratio of on-payroll-to-on-duty personnel. When employee absenteeism rate is high, there may have to be five full-time on-payroll employees for every three on-duty personnel needed daily. In an agency with liberal holiday and vacation allowances, high sickness and absenteeism rates, lengthy orientation periods, and frequent in-service programs, it may even be necessary to maintain twice as many full-time on-payroll employees as on-duty personnel needed daily. For more

detailed information on this topic, see also Chapter 16.

After the agency's vice-president of nursing and nurse administrators have calculated the number of personnel in each category to be budgeted for each nursing unit and for the total nursing department, the requested staffing level should be compared with that of similar agencies and with national standards. In 1982 the average, nonfederal, short-term U.S. general hospital had a 1.5:1 nurse-patient ratio, and about one-half of the nurses were RNs (Becker

and Foster, 1988). The American Hospital Association's 1982 survey revealed that the highest proportion of RNs were in larger hospitals and in hospitals belonging to multinstitutional systems (American Hospital Association, 1982).

Health agencies differ concerning the number of weekly work hours expected of a full-time employee. Not all part-time personnel work the same number of hours per week. To simplify the computation of full-time equivalent (FTE) personnel budgeted or assigned to each unit, the American Hospital Association defines a full-

RESEARCH BRIEF

Competencies of Bachelor of Science in Nursing (BSN) and Associate Degree in Nursing (ADN) Graduates

Purpose: (1) Design and test a tool to measure competencies of BSN and ADN graduates; (2) Design a collaborative nursing model in which BSN and ADNs practice together effectively.

Subjects: Volunteers: Newly graduated BSNs (four) and ADNs (eight), working on a medical unit of a New York Medical Center.

Method: Subjects were oriented to agency policies and procedures and activities of BSNs and ADNs in the Collaborative Nursing Model. Subjects were organized into sets of one BSN with two ADNs, each of whom was assigned to a group of patients. The BSNs were responsible for performing health assessments, assigning patients to associate nurses and self; developing nursing care plans; consulting with BSNs from other sets; acting as resource to ADNs; developing discharge plans. The ADNs were responsible for contributing data about patient status; implementing and updating their patients' care plans; and collaborating with the BSN to carry out established protocols. Using National League of Nursing and New York State Nurses Association statements of ADN and BSN competencies, investigators developed an 18-item checklist of expected BSN competencies and a

12-item checklist of expected ADN competencies. During a two-week period, subjects implemented the Collaborative Nursing Model and investigators recorded, for each subject, whether each expected competency was present, absent, or not applicable.

Findings: The BSNs recorded nursing diagnoses, care plans, and teaching plans less frequently than expected (58 percent, 67 percent, 11 percent, respectively). The ADNs recorded information about patient status as frequently as expected (100 percent). Four BSNs and five ADNs felt unable to perform independently on the first clinical day. Fifty percent of BSNs and 75 percent of ADNs said that they had been educationally prepared for competencies on respective checklists. All BSNs felt unprepared for leadership.

Application: These competency lists can be used to assess BSN and ADN performance in other agencies. In order to select the best nursing care-delivery method for a particular agency and determine the appropriate skill mix for each nursing unit, managers must know which competencies to expect of each category of employees in that setting.

Source: Levin, R. M., et al. "Competencies of BSN and ADN Graduates: A Study of the Collaborative Nursing Model." *Nursing Management* 18:6 51-58, 1987.

time employee as one who works 35 hours a week and calculates FTE staff by adding one-half the number of part-time staff to the number of full-time staff (Becker and Foster, 1988).

Recently, there has been increased collective bargaining activity by all categories of health workers. Rising health care costs have resulted from the need to hire additional, more expensive nursing personnel to care for the same or fewer numbers of patients, because successful union negotiations have won increased vacation, holiday, and convention time for professional, practical, and ancillary nursing personnel.

SUMMARY

To accomplish work through others' efforts, the nurse manager must assemble appropriate types and numbers of personnel to administer the level of care demanded by unit patients. To predict nursing workload, the manager must determine the number of each type of patients (medical and nursing diagnoses, severity and acuity groups) to be cared for, the expected treatment measures and care needs, and the expected lengths of stay. To calculate the number of employees in each job category to fulfill anticipated care needs, the manager must weigh employees' knowledge and skills in each category, the method of nursing care delivery, optimum mix of professional to nonprofessional (high- to low-skill) personnel, annual work hours for each employee, and patterns of employee work schedules. These patient and staff characteristics will vary with changes in community health and agency functions, so that information must be continuously updated to predict staffing needs accurately.

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Recruitment, Selection, Orientation

First-rate people hire first-rate people

ROBERT TOWNSEND

OBJECTIVES

After reading this chapter, you should be able to

1. Construct a personnel profile of nursing personnel on your unit.
2. Outline steps of a recruitment plan for attracting a suitable mix of newly graduated and more experienced nurses to your unit.
3. List content topics for a newspaper or journal advertisement to attract applicants for employment in your agency.
4. Conduct a job applicant on a tour of your nursing unit to acquaint him or her with the job setting and functions of an available position.

After the nurse manager or administrator has decided how many of each category of nursing personnel are needed to provide nursing care to the agency's patients, personnel must be obtained to fill vacant budgeted positions. Recruitment, which consists in securing applicants to fill available positions, may be performed by nursing department personnel, employees of the personnel department, or both.

In a large agency it is advisable to assign a

nurse recruiter to the personnel department to direct nurse recruitment. The nurse recruiter should be thoroughly acquainted with the operation of all nursing divisions and familiar with personal, educational, and experiential qualifications for each nursing position. He or she should select one nurse from each clinical nursing division to assist with specific recruitment efforts.

The appearance, manner, and personality of

the nurse recruiter are important in attracting applicants, because this individual will represent the agency's philosophy, purpose, and program to the public at large and to potential job applicants. A personable, friendly, well-informed, well-spoken recruiter conveys the impression that the agency is equally warm, attractive, and open. Likewise, the nurse from each clinical division who assists the nurse recruiter with specific recruitment activities should be chosen for appearance, behavior, and attitudes that convey a favorable impression of the sponsoring agency. In one study when senior baccalaureate nursing students were asked which recruitment efforts influenced the selection of their first nursing position, 90% of the students' comments related to interactions with a nurse recruiter (Kersten and Johnson, 1992).

CONSTRUCTING A NURSING PERSONNEL PROFILE

Before implementing any recruitment activities, the nurse recruiter should construct a profile of present nursing staff members, to provide a basis for the overall recruitment effort. A personnel profile should include the following information:

1. Total number of nursing personnel in the agency and each unit, by job category (aide, practical nurse, staff nurse, head nurse, clinical nurse specialist, divisional nursing director, etc.).
2. Percentage of personnel in each job category with nursing diploma, associate degree, baccalaureate degree, masters' degree, doctoral degree, and specialist certification.
3. Percentage of personnel in each job category in 20- to 35-year; 35- to 50-year, and 50- to 65-year age groups.
4. Percentage of personnel in each job category who are graduates of foreign nursing schools and number of graduates from each country other than the United States.

5. Number of personnel in all job categories who are currently enrolled in college courses.
6. Number of personnel in all job categories who attended continuing education or staff-development courses during the previous year.
7. Annual percentage of personnel turnover, by job category, for the total nursing department, each clinical nursing division, and each nursing unit.
8. Average length of employment for personnel in each job category, for the total nursing department, each clinical nursing division, and each nursing unit.
9. Average rate of absenteeism, by job category, for the total nursing department, each clinical nursing division, and each nursing unit.
10. Percentage of nursing staff who live within the agency's immediate vicinity (walking distance), percentage living in the same community, and percentage who commute from each surrounding community.

After a nursing personnel profile has been developed, the recruiter should discuss the profile with the vice-president of nursing and nursing administrators and invite the group to identify current staffing problems and suggest recruitment activities that are likely to remedy these problems.

PLANNING A RECRUITMENT PROGRAM

When gathering information to be used in designing recruitment efforts, the nurse recruiter should review reports of nurses' exit interviews. Such reports often reveal sources of job dissatisfaction that can be remedied through minor changes in organization structure or work processes. When exit interviews are conducted by a skilled interviewer from the personnel department under nonthreatening circumstances (after the departing employee's final performance evaluation), the nurse will usually freely

discuss any difficult job aspects, inequities in work assignment, environmental hazards, and frustrating administrative policies.

The recruiter should invite a group of representative nurse managers to review nurses' exit interview data, to identify organizational changes that would be likely to reduce nursing personnel turnover. To organize interview data for the manager's review, the recruiter should list reasons for resignation in tabular fashion and indicate the percentage of personnel in each category who resigned for each listed cause during each of the previous five years.

A word of caution is necessary, however. Information given by employees during exit interview is highly colored by emotion. McCloskey (1975) found that a common cause for a young graduate's resignation is dissatisfaction with her own performance. Inexperienced nurses often defend themselves against feelings of failure by projecting personal shortcomings on to others in the work setting. Therefore, a departing nurse may explain that she or he was unable to perform satisfactorily because the unit was poorly staffed, the head nurse was a poor manager, certain fringe benefits were lacking, or she or he was not properly oriented and supervised. It is possible for a biased interviewer to "lead" an interviewee to criticize agency policies, magnify the importance of minor agency problems, or condemn a particular manager. Consequently, before exit interview data are used to guide recruitment efforts, the recruiter should ensure that departing personnel were questioned by a skilled interviewer who had no vested interest in obtaining positive or negative responses to interview questions.

The current nurse shortage has highlighted the need for health agencies to actively market nursing positions to available applicants. Marketing is a planned approach to promote an exchange relationship with a desired constituency. Marketing encompasses four concepts: product, place, promotion, and price (Barigar and Sheator, 1990).

To market employment to professional

nurses, the recruiter should describe the *product* as a nursing position with opportunity for personal adventure, professional enrichment, and social expansion that can be shaped to satisfy an incumbent's needs and showcase her or his abilities. In addressing *place* the agency and the nursing unit should be described as settings for high-quality care of selected types of patients and enriching professional experience for nurses of the applicant's description. In planning *promotion* of the job to applicants, the recruiter must decide who can most persuasively convey what facts about the job and when and how this information should be transmitted to attract the highest-quality candidates. In marketing jobs, the *price* factor should include present salary, insurance benefits, in-service education opportunities, pension or retirement provisions, and promotion opportunities.

MEMO CAPSULE

Marketing a Job

- **Product.** Emphasize opportunities for adventure, education, advancement.
- **Place:** Represent agency as site for high-quality care, career advancement.
- **Promotion:** Have an attractive agency representative describe available jobs.
- **Price:** Stress employment benefits, education opportunities, salary increments.

A study of newly hired hospital nurses in the Northwest revealed significant discrepancies between employment factors that were important to nurses and employment conditions present in the hospitals that employed them. The factors of greatest importance to nurses were the opportunity to work in a selected specialty, appropriate workload, hospital reputation for high-quality care, friendly staff members, and flexible work schedule (Barigar and Sheator, 1990).

The agency's formal nurse-recruitment plan should be updated for each fiscal year. A data base for the plan should include workload-work force information from first-level, mid-level, and upper-level nurse managers. Close scrutiny should be given to organizational changes during the previous 12 months that are likely to influence care demands and workload, such as expansion, restructuring, or downsizing; job enrichment or enlargement; alteration in management style; implementation of shared governance or case management; change in method of nursing care delivery; and installation of new patient care or management equipment (Pattan, 1992).

Federal, state, and local manpower statistics on the numbers of registered and practical nurses employed and the number of nurses graduated annually from diploma, associate degree, baccalaureate, and practical nursing programs should be reviewed before planning a nurse-recruitment program (Moses, 1982; Schoen and Schoen, 1985). An upward trend in employment figures for a category of nursing personnel, together with constant graduation figures for the group, predict increasing difficulty in recruiting personnel of that category. In such case, the recruiter should advertise for the needed category of personnel in newspapers or journals with regional or national distribution, as well as in local publications.

The recruiter should determine the number of nurses graduated annually from each local nursing school in order to plan how much time will be needed to canvass each school's graduates. If the agency's staffing plan calls for preferential hiring of baccalaureate nurses, more time should be devoted to graduates of four-year colleges than community colleges or diploma schools. If one local baccalaureate program graduates 100 nurses annually and another produces only 12 graduates, it may be advisable to offer a career-day program for graduates of the large program and use direct telephone contact to recruit nurses from the smaller one.

To design a "sales pitch" that will attract potential applicants, the recruiter must be familiar with salary scales and fringe-benefit packages offered by other health agencies in the same and surrounding communities. If agency salaries are higher than those in nearby agencies, that fact should be stressed in wooing possible applicants. If agency salaries are lower than those of competitors, the recruiter may be able to offset this disadvantage by emphasizing a unique feature of the agency, such as generous fringe benefits or rich educational opportunities. If agency salaries are *much* lower than the community's average, the recruiter and the vice-president of nursing should convince the agency administrator of the necessity for immediate increase in salaries and benefits to prevent exorbitant nurse turnover rates.

To determine which activities are likely to attract the most numerous or most promising applicants, the recruiter should analyze the effects of previous recruitment activities. In some agencies, the personnel department receptionist asks each job applicant how she or he learned of the agency's employment opportunities. This information should be summarized on a monthly, quarterly, or annual basis to show the percentage of applicants attracted by newspaper advertisements, convention flyers, journal listings, career-day programs, bulletin board posters, personal letters, and information from agency employees. Analyzing these data allows a recruiter to devote scarce time and funds to activities most likely to attract desired personnel.

TRADITIONAL RECRUITMENT METHODS

Most health agencies use multiple methods to recruit needed employees (Beyers et al., 1983). Traditional methods include advertising, career days, printed materials, "open house," continuing education, and employee referrals.

Advertising

Advertisements in local newspapers, nursing organization bulletins, and nursing journals are

common recruitment methods. In a large metropolitan area, an advertisement in a neighborhood weekly paper may attract more applicants to a health agency in the paper's circulation area than an advertisement in a metropolitan paper. A possible explanation is that nurses who are already out of work or are seriously contemplating a job change are most likely to read job postings in a metropolitan daily. Readers of a neighborhood paper live within the paper's circulation area and take a personal interest in the paper's content. The few job listings carried by a neighborhood paper are read, not only by avid job seekers but also by satisfied employees who are curious about agencies similar to their own. Some employees who read local job listings from curiosity stumble on a job description that promises more attractive employment than their current position, simply because it is within walking distance of their home.

When choosing a journal in which to advertise for nursing personnel, the recruiter should take into consideration each journal's characteristic readership. Either *Nursing '95* or *RN* would be a suitable journal for advertising a staff nurse position, because both appeal to younger nurses in a variety of specialties. An advertisement in the *Journal of Nursing Administration* should be successful in recruiting a vice-president of nursing, and an advertisement in *Nursing Management* should be successful in recruiting a head nurse or patient care manager. The *Journal of Nursing Administration* and *Nursing Management* would be less likely to draw applicants for a staff nurse position, because these publications are designed for nurses with managerial interests.

Career Days

In some metropolitan areas, nursing schools hold annual career-day programs during which recruitment officers from local health agencies inform senior students about employment opportunities in those organizations. The recruitment officer from each agency is assigned a table or booth for distributing recruitment brochures

and interviewing job applicants. Each recruiter may give a formal presentation to the senior class to describe her or his agency's purpose, programs, and job openings. Following the formal presentation, the recruiter can answer questions from the audience about responsibilities of specific jobs, salary schedules, fringe benefits, in-service education, promotion opportunities, and the like.

A health agency's recruitment officer should attend all nursing career-day programs to which he or she is invited, because these programs are designed so that a large number of potential applicants can be contacted in a brief period.

Recruitment Literature

When an agency that hopes to recruit nurses is affiliated with a nursing school, a flyer listing available nursing positions, with salary range and personnel benefits for each, should be mailed to the school's graduating seniors and alumnae.

Printed recruitment brochures that are distributed to applicants should be thoughtfully planned and produced. In some agencies there is a recruitment committee, composed of the vice-president of nursing, divisional nursing directors, nurse recruiter, and a representative of the head nurse and staff nurse groups. This committee should decide which groups and individuals will receive recruitment brochures and whether recruitment materials should be hand-delivered or mailed. The committee should calculate how many pieces of recruitment literature will be distributed during a six-month period and decide the form and content of the recruitment literature to be distributed. If the agency has public relations and design departments, recruitment materials may be produced internally. If not, the committee should consult an external advertising expert for help in designing recruitment brochures and writing copy for other recruitment materials.

Thousands of pieces of recruitment literature will be distributed in a year's time. If recruitment funds are limited, the recruitment com-

mittee may decide that a single printed sheet folded upon itself to form a six-column brochure, rather than a booklet, will be the primary recruitment instrument.

The quality of the recruitment brochure and other materials conveys an impression of the sponsoring agency to applicants who are unfamiliar with the organization. If format, color, and text of the brochure are ultra conservative and unimaginative, younger applicants may perceive the agency as dull or out-of-date. If the brochure displays bright colors, dramatic pictures, and brisk narrative style, applicants may perceive the agency as exciting, innovative, and attractive. Recruitment materials should call attention to agency features that support a professional level of nursing practice. Presence of state-of-the-art patient care and management technology, such as bedside computer terminals, telecommunication systems, or automatic employee scheduling systems should be highlighted, and these should be described as devices that save nursing time and facilitate organized and efficient patient care and nursing management (Adamski and Hagen, 1990).

Open House

The open house is a useful recruitment device for a health agency that has an especially attractive physical plant or work force. The agency's physical plant need not be new or expensively furnished to be attractive. If the agency's physical plant is clean, well organized, and reveals the drama of ongoing life-preserving and life-enhancing events, the setting will be attractive to idealistic, service-oriented nurses. Invitations to an open house may be sent to individual nurses, groups of specialty nurses, professional organizations, and nursing honor societies. Members of the agency's current staff may submit names of friends who have expressed interest in the agency and, so, would be likely to attend an open house. Invitations may be extended to students and alumnae of nearby nursing schools. Notice of the open house may be published in a daily paper or a nursing as-

sociation bulletin and published through spot radio announcements in order to reach all nurses in the community.

Often, an open house is scheduled for a half-day and includes different types of activities, such as a brief formal program relating to agency history, purpose, and general characteristics; group tours to selected nursing units, slide-sound show depicting typical orientation activities, work assignments, continuing education programs, committee work, promotion opportunities, and employee services provided by the agency. The open house program usually concludes with a social hour during which guests are given opportunity to mingle with agency nurses and ask questions about agency operations.

Continuing Education Programs

Another means for an agency to attract new nurses is to offer low-cost, credit-carrying continuing education programs on topics of current interest to outsiders, as well as to agency employees. Even in states where continuing education credits are not a licensure requirement, nurses enroll in continuing education courses to keep up-to-date with nursing advances and improve their chances for promotion. A nurse with no interest in working in a health agency would be unlikely to attend an open house program but could be drawn to the agency by a continuing education program that appeals to her or his professional interests.

While attending a continuing education program, outsiders can be given opportunities before the program, between group discussions, during lunch, and following the program to observe the agency's physical plant and talk with agency employees about their jobs and working conditions. Agency employees who attend in-house continuing education courses convey information about the quality of institutional life to outsiders with whom they interact in a continuing education program. A head nurse who boasts about a successful experiment with a four-day or seven-day workweek reveals per-

missive attitudes on the part of agency administrators and effective management on her or his own part. A staff nurse who complains that, after six months on the job, she or he has met few employees beyond those in her primary work group reveals as much about the agency's orientation program as about her or his own social skills.

When continuing education programs are used to recruit job applicants, recruitment brochures, job postings, and job application forms should be available in the class or conference room for outsiders who inquire about employment opportunities in the agency. If a coffee break is provided during the program, the nurse recruiter (wearing a name tag with title affixed) should mingle with guests and distribute recruitment materials to interested nurses.

Employee Referrals

The single most effective nurse recruiter is a satisfied member of the agency's nursing staff. Consequently, a vice-president of nursing who wishes to fill positions in a particular nursing unit should ask employees in the unit to recruit nurses with whom they have worked comfortably in other settings. Nurses are a highly mobile occupational group. Many nurses have worked in two or three agencies after they have been out of school for a few years. In transferring from one agency to another, or one unit to another in the same agency, a nurse can work with dozens of other nurses in a short period. In the staff nurse role an individual has many opportunities to evaluate other nurses' clinical skills at close range. When a nurse moves to another agency and a job vacancy occurs in her or his primary work group, the nurse can usually recall several nurses from previous employment settings who could effectively fill the vacant position. When a staff nurse recommends one or two from dozens of former coworkers, she or he is probably making a more discriminating employee selection than a head nurse can make by choosing one nurse from three or four unknown applicants who respond to a job offered

through a newspaper advertisement or bulletin board flyer.

When an agency is unable to draw applicants through the usual recruitment methods, the organization may offer a bounty to any staff member who recruits a new employee. Bounties range from \$200 to \$1,000, and most are contingent on the recruit's remaining in the agency for at least one year. Although bounties may increase the number of job applicants and speed filling of vacancies, some method must be found to retain the personnel secured through this method. Unless efforts are made to increase employees' job satisfaction and decrease their dissatisfactions, newly hired employees may not remain in the agency long enough for their sponsors to collect the promised bounty. When employees discover that they will not be rewarded for recruiting coworkers, they cease to do so.

MEMO CAPSULE

Recruitment Methods

- Newspaper advertisements: Metropolitan, regional, national papers
- Journal advertisements: Periodicals directed toward targeted recruits
- Career-Day programs: Printed brochures distributed by an agency nurse
- Open House: Showcase of the opening of a new service or education program
- Employee referrals: Present staff recruit their nurse-acquaintances

OTHER AD HOC METHODS

To recruit nurses when they are in scarce supply, the manager should identify features of the agency and the position that are likely to attract candidates, emphasize those features in publicizing the position, advertise the position widely, and offer more attractive work schedules than those of competitive agencies. To assess the agency's drawing power, the manager

should question long term employees about their reasons for remaining in the organization (Peringian and Skeegan, 1984). Wide-scale publicizing of a position includes advertising in the Sunday help-wanted section of a large local paper, in nursing career opportunities directories, nursing journals, professional newsletter, college bulletin board, and nursing job fairs (Recruitment and retention, 1984). To offer attractive work schedules, nurse administrators will have to design some schedules that provide day shift, Monday-through-Friday work for mothers of school children and 10- to 12-hour weekend shifts for nurses who are enrolled in school on a full-time basis; hire two or three part-time workers to fill one regular full-time position; and provide flex time or on-call assignments for mothers of small children who are willing to work during peak periods when they have a relative or friend to provide needed child care (Connelly and Strauser, 1983).

Most persons do not use a rational, multistep decision model in a job-search or job-selection process. Instead, persons in search of a job focus attention on only one or two job expectations and select a position and agency that best meet one or two highest-priority expectations (Soelberg, 1967). A study of senior baccalaureate nursing students revealed that job orientation and reputation of the health agency were more important in selecting the first nursing position than benefits, salary, or agency location (Kersten and Johnson, 1992). These senior nursing students rated personal interviews with nurse recruiters and nursing directors or supervisors as more important recruitment methods than job advertisements and career days.

Headhunters

When the manager is unable to fill a key nursing position despite such efforts, the agency should employ a headhunter to locate a suitable candidate. Headhunters can be hired on two bases: retainer or contingency search. In the former arrangement the headhunter is given an exclusive contract to locate a job candidate, is paid

33 to 50 percent of the agreed-on fee when the contract is signed, and receives the remainder of the fee when the employee is hired. Under the second arrangement, although no contract is written, when a headhunter-identified candidate is hired, the agency pays the headhunter a percentage of the employee's first-year salary (Taylor, 1984).

Temporary Staffing Agencies

During a nurse shortage some hospitals use temporary staffing agencies as a source of personnel to meet acute staffing needs caused by fluctuating patient census. However, obtaining nurses from a temporary staffing agency is not a wholly satisfactory way to fill vacant full-time positions for two reasons. Usually, nurses are hired from a temporary staffing agency during sudden, unexpected staff shortage, so there are too few regular staff to adequately orient the temporary nurse to unit layout, patients, personnel, protocols, equipment, and supplies. Consequently, the temporary nurse is prone to errors, omissions, and unsatisfactory performance. Also, because the temporary nurse's affiliation with the health agency is short term, she or he lacks strong commitment to the health agency's goals, personnel, and clients.

In-house Staffing Agencies

To overcome the temporary nurse's lack of familiarity and commitment to the health agency, some hospitals organize an in-house staffing agency. Advantages of an in-house agency for temporary staffing are the fact that (1) it provides resources for personnel coverage under emergency conditions without increasing the agency's total labor pool; and (2) it provides employees with alternative or additional employment opportunity that permits greater control over scheduling than is possible in regular, full-time staff positions.

To establish an in-house temporary staffing agency the vice-president of nursing should clarify the proposed agency's legal status (hospital department, subsidiary of the hospital, or sep-

arate business), obtain sufficient "start-up" money to begin operations, and find space for the agency office and parking spaces for additional personnel (Manion and Reid, 1989). He or she and the hospital's legal counsel should explore state and federal laws that regulate the incorporation and operation of a business and determine who will be the clients and customers of the proposed in-house staffing agency (only the associated hospital, other hospitals, other types of health agencies). Finally, the vice-president of nursing should conduct or direct others to conduct a marketing survey to determine the types of units for which nurses are likely to be ordered, the approximate number of nurses to be ordered per day, week, or year, expected seasonal variations in demand, competing agencies in the community, and special needs or expectations of clients (Schmidt et al., 1990).

Traveling Nurses

If supplementary staffing agencies in the community and an in-house agency cannot provide enough nurses to meet emergency staffing needs, a health agency may hire traveling nurses. An agency that supplies this new type of temporary worker contracts with a selected hospital to provide a specified number of traveling nurses for a moderate time interval (often three months) for a specified nursing unit. The manager of the receiving nursing unit interviews each referred nurse by phone to determine whether the candidate's education, experience, and apparent motivation are adequate for demands of the vacant position. If the interview is satisfactory, the traveling nurse is hired. If the nurse proves satisfactory during the probationary period (usually two weeks), the nurse remains in the agency for three months. Most traveling nurse agencies allow a traveler to extend a satisfactory appointment for an additional three months. Sometimes, the traveling nurses agency's contract permits a contracting hospital to hire a traveler nurse as a regular staff member after a six-month appointment through the traveling nurse agency (Medland, 1992).

PROCESSING AND INTERVIEWING APPLICANTS

When recruitment activities are unusually effective, several candidates may apply for a single position. Some nurses pursue job search by submitting applications to several agencies simultaneously. Therefore, the recruiter, personnel manager, and unit manager should process candidates quickly, to avoid losing a promising candidate to an agency that gives the nurse an immediate job offer.

Considerable care should be used in selecting the secretaries, receptionists, and employment interviewers who handle nurse applicants on their first contact with the health agency. A secretary who does not immediately respond to an employment query with a personal letter and offer of an employment interview may unwittingly shunt the applicant to another, more responsive agency. A rude or indifferent response by the receptionist who answers an applicant's telephoned request for interview will discourage the most enthusiastic applicant's interest in the agency.

Generally, the employment interviewer in the personnel department talks with a nurse applicant on her or his first visit to the agency. The personnel department interviewer should determine which position the applicant is interested in filling. Such clarification is necessary, because several nursing positions may be listed in one newspaper or journal advertisement. The interviewer should investigate the applicant's previous education and experience to ensure that she or he possesses the necessary qualifications for the desired position. The interviewer should describe the salary ranges and personnel benefits associated with the desired position. Finally, the applicant should be referred to a nurse manager in the clinical division where the job vacancy exists.

Health agencies differ with regard to the organizational status of the nurse manager who is authorized to interview and hire job applicants. In some agencies, the divisional nursing director of the appropriate clinical area interviews and hires applicants. In an agency where

management decisions are decentralized, the head nurse or patient care manager who will be the new employee's immediate superior interviews applicants and selects one for appointment. The latter practice is preferable. When staff nurse and head nurse "choose" one another during the hiring process, a strong and supportive bond is forged between them. An applicant who meets her or his future manager on first contact with the health agency and hears that manager describe job tasks to be performed and performance standards to be met will be in a good position to decide for or against committing to that job and that supervisor. In addition, a head nurse is more highly motivated to orient, instruct, coach, and develop a staff nurse whom she or he has selected than one selected for the unit by a divisional nursing director.

Interviewing a job applicant is a time-consuming activity. Usually, a job applicant is interviewed for 15 to 30 minutes by a personnel department interviewer, then interviewed for another 30 to 45 minutes by a clinical nursing manager, then given a 20- to 30-minute tour of the nursing unit in which the vacant position is located. Ideally, the employment interviewer should check the applicant's nursing license, record the license number, review the applicant's employment record, and, when possible, check work references before scheduling an interview with the appropriate head nurse or divisional nursing director. Through this procedure, the personnel department interviewer can screen out applicants who lack minimum qualifications for the position and save time of the nurse manager who is responsible for employee selection.

On the day of the scheduled applicant interview, the nurse manager should review the candidate's application form and professional biography, noting points of information to be explored in conversation with the applicant. The head nurse may wish to know whether the applicant has served as a primary nurse during previous employment. The manager may wish

to inquire whether the applicant had experience in nursing research during the baccalaureate or master's program of study. Or the manager may be curious about an unexplained five-year gap in the applicant's employment history.

All nursing personnel who are responsible for interviewing job applicants should be trained in interviewing principles and techniques to ensure that this most crucial step in the employee-selection process is effectively carried out. An interview is a planned, purposeful conversation between two persons in which each seeks information from the other to be used for their mutual benefit. In an employment interview, the nurse manager seeks information about the applicant's knowledge and abilities to determine whether the applicant can fulfill the responsibilities of the vacant position. The applicant seeks information from the nurse manager about job tasks to be performed, working conditions, and nature of supervision. Thus, the purpose for the employment interview is information exchange between applicant and manager to facilitate decisions about offering and accepting the job. The more accurate the information exchanged, the sounder the decisions of both parties.

Each communication act includes a sender, a message, a transmission process, and a receiver. In any interchange message clarity and accuracy of perception depend on the communication skills of *both* participants. During a preemployment interview, the representative of the hiring agency should control the situation, directing conversation according to a preconceived plan. To obtain the necessary information from a job applicant, the agency representative must employ high-quality interviewing skills. The following interviewing principles should guide the preemployment interview.

1. Create and maintain a comfortable environment throughout the interview.
2. Conduct the interview according to a preplanned outline.
3. Explore the applicant's background and

future plans before describing the available position.

4. Encourage the applicant to talk freely by asking nondirective, open-ended questions.
5. Listen actively, and talk sparingly while the applicant describes her or his background and future plans.
6. Attend to your own and the applicant's nonverbal communications.
7. When describing the available position, give information about job responsibilities and working environment, withhold opinion about the applicant's ability to fill the position.
8. Identify both positive and negative aspects of the job in detail.
9. In concluding the interview, clarify subsequent steps in the selection procedure. (Dessler, 1984)

The manager who conducts a preemployment interview is responsible for setting the meeting tone. Distraction, discomfort, or anxiety on the part of the applicant or manager will block communication between them (Murphy, 1983). The manager is at an advantage because she or he is operating in familiar surroundings. Therefore, the manager should extend herself or himself to ensure the applicant's comfort during interchange.

On first meeting the applicant, the manager should extend the courtesies expected in any social situation. She or he should rise, smile, offer to relieve the applicant of coat or briefcase, and offer a comfortable chair. The chair in which the applicant sits should be close enough to the manager that they can see and hear each other without strain and so that there is no feeling of distance between them. The applicant's chair may be placed alongside the manager's desk so they will not be separated by a large piece of furniture. The two may sit side by side, facing a coffee table located across the room from the manager's desk.

An applicant's comfort is increased when she

or he enjoys the manager's full attention and adequate time is provided for detailed exploration of the applicant's abilities and the job's demands. It is easier for the manager to give the applicant her or his full attention if the office door is closed and the secretary holds all incoming telephone calls until the meeting is finished. To secure adequate time for the interview, the manager should schedule a free half-hour before and after each preemployment interview. The planned time gap enables the manager to return important telephone calls and to attend to other business between interviews while ensuring that each interview begins at the scheduled time.

The manager's nonverbal behavior during the interview will affect the applicant's comfort. To maintain self-confidence the applicant must feel that her or his ideas and abilities are respected by the interviewer and that she or he has a chance of obtaining the desired job. A manager demonstrates respect for an applicant's ideas by nodding and smiling at appropriate points during the conversation. The manager demonstrates respect for the applicant's abilities by listening carefully and maintaining eye contact, while the applicant describes past accomplishments. A manager suggests that serious consideration is being given the candidate's application by exploring the nurse's qualifications and the job's demands in detail, recording significant data volunteered by the applicant, and summarizing major points of discussion at the end of the interview.

The applicant should be seated facing away from the window, because it is difficult to observe another's changes of facial expression through a glare of bright light. If the applicant is given a cup of coffee during the interview, a space should be cleared on a nearby desk or table for the cup. If there is a clock in the office, it should be located behind the applicant's chair and in the manager's direct line of vision to allow the interviewer to keep track of time without distracting the applicant. Because manager and applicant must remain in the office with the door closed for an hour or so, room temperature

should be regulated for comfort before beginning the interview. If the room becomes unduly hot or cold during the session, the manager should interrupt the interview to adjust environmental controls for optimum comfort. Although interrupting the interview in midstream may cause interviewer or applicant to lose the train of thought, discomfort of either participant will impair communication. If excessive noise, temperature extremes, or humidity problems cannot be remedied, the manager should escort the applicant to another, more suitable room and complete the interview in more comfortable surroundings.

The nurse manager should maintain control of the interview and follow a preplanned outline (interview schedule) to ensure that the same topics are explored with all applicants for the same position. At points during the interview, as when clarifying or expanding information recorded on the job application, the manager should resort to direct, focused questioning, such as "Can you tell me more about the certificate course in geriatric nursing that you completed last year?" or "Would you describe your responsibilities as chairman of the Nursing Standards Committee at X Hospital?" When exploring the applicant's work motivation, interpersonal style, and communication skills, the manager should use open-ended, nondirective questioning to encourage greater self-disclosure by the applicant, such as "What would you say are the most important problems confronting the profession of nursing today?" or "How would you characterize your usual relationship with physicians?" or "What do you think was your most important accomplishment in your last job?" (LaRocco, 1982).

Because the traditional job interview failed to reveal needed information about candidates' organizational and cognitive abilities, managers at a midwestern hospital instituted a two-step job-interview system. The initial interview was a traditional interchange in which the manager obtained information about the candidate's professional preparation, employment experi-

MEMO CAPSULE

Preemployment Interview

- Offer a comfortable environment: Ensure minimal physical and psychological stress.
- Follow a preplanned outline: Move from general to personal issues.
- Explore applicant's background: Follow with description of job.
- Ask open-ended questions: Encourage questions by applicant.
- Listen actively, talk sparingly: Facilitate self-revelation by applicant.
- Monitor own and applicant's nonverbal messages: Note causes of anxiety.
- Describe both positive and negative job aspects: Create realistic expectations.
- Close interview by outlining further steps in selection process.

ence, and work motivation through nondirective interviewing. The second interview was an hour-and-a-half "in-basket" simulation exercise that consisted of 10 problem situations for which the candidate was to establish priorities, identify the amount of time to be devoted to each, state action to be taken in each situation, and indicate rationale for each action. The candidate's performance was evaluated against preestablished criteria by a panel of employees from the department where the nurse would work, if hired. This method increases the probability of choosing a candidate whose abilities are well matched to job requirements, and it increases likelihood of the worker's later job satisfaction (Walters, 1987).

SELECTION

There may be more than one applicant for a given position. Personnel selection is the process of choosing from several candidates the one to be employed in a particular position. Thus, selection decisions are made with an eye toward satisfying specific organizational goals. On the other hand, placement is the process of choos-

ing, from several positions, the one best suited for a particular candidate (as deciding whether to assign a newly hired staff nurse to a medical-surgical unit or a geriatric unit, if both have vacant positions). Placement decisions are made with an eye to satisfying specific employee goals. In making a selection decision, the manager must pay close attention to the candidate's present abilities and interests. In making a placement decision, the manager should consider the applicant's long-range career plans as well as present abilities (McCormick and Ilgen, 1980). To select the best applicant from several, the manager must obtain comparable information about all applicants and compare the strengths and weaknesses of all.

The best way to obtain comparable information from all applicants is to follow a standardized outline in conducting all preemployment interviews for a particular position. After the interview outline has been agreed on, a form should be prepared that lists the general categories of information to be covered and key questions for eliciting desired information, with space adjacent to each item for recording comments of interviewer and applicant. The manager should explore the applicant's background and goals before describing job tasks and personnel policies. Therefore, the first portion of the preemployment interview outline should emphasize client-centered issues, and the last portion of the outline should emphasize job-related matters.

As nursing practice becomes more technical and specialized, an applicant's clinical skill level becomes increasingly important in making selection and placement decisions. Some agencies have a nurse applicant complete a comprehensive clinical skills checklist on her or his first visit to the personnel department. Skills included in the checklist can be obtained from job descriptions and from skill inventories developed by nurse preceptors from all specialty areas. The comprehensive skills checklist can be refined by having a nurse specialist from each clinical nursing division weight each skill ac-

cording to its importance in that specialty. When an applicant has previous employment experience in several clinical specialties, completion of a weighted skills checklist will enable a recruiter or personnel specialist to determine the clinical specialty for which the candidate's skills are most appropriate (Naught, 1987).

COMPARING THE BACKGROUNDS OF JOB APPLICANTS

After all applicants for a position have been interviewed, the manager should compare their strengths and weaknesses to decide which is the most promising individual for hiring. It is easier to contrast educational and employment data about several candidates when data are summarized in tabular form. Information about five applicants for the position of patient care manager of a surgical recovery unit might be summarized as shown in Table 13-1.

Depending on her or his philosophy of nursing and management, the administrator who interviewed the five applicants might choose Ms. B. for the position of recovery room manager. In comparing educational and experiential backgrounds of the candidates, the administrator would probably consider the following. Ms. A had a more comprehensive basic nursing education, greater total nursing experience, and the same amount of recovery room experience as Ms. B, but she had completed no credit courses since graduation from nursing school and had attended no continuing education courses relevant to the job for which she was applying. Ms. C had a more comprehensive basic nursing education, almost as much total nursing experience as Ms. B., and had earned a master's degree in business administration, but she had little recovery room experience and had not taken any continuing education courses during the past two years. Although all of Ms. D's nursing experience had been in surgical nursing and she had completed requirements for a bachelor's degree while working full-time, she had no experience in recovery room nursing. Ms. E had more total nursing experience, almost as much

Table 13-1 Summary of Educational and Experiential Backgrounds of Five Applicants for the Position of Recovery Room Supervisor

Applicant	Undergraduate Education	Graduate Nursing Experience	Surgical Nursing Experience	Recovery Room Experience	Credits or Degrees since Graduation	Relevant Continuing Education Courses Completed in Past Two Years
Ms. A	BSN	11 years	9 years	8 years	0	0
Ms. B	Diploma	10 years	8 years	8 years	BSN MA in psychology	6 weeks critical care nursing
Ms. C	BSN	9 years	5 years	1 year	MBA	0
Ms. D	ADN	6 years	6 years	0	BSN	0
Ms. E	Diploma	13 years	7 years	6 years	0	6 months family nurse practitioner

surgical nursing and recovery room experience as Ms. B., and had completed a six-month non-credit family nurse practitioner course during the past two years, but she had no degree.

Without summarizing educational and experiential data about the applicants, an administrator selecting one from the group would have to turn back and forth repeatedly between pair after pair of application forms and interview records to determine which applicant was best qualified for the job. With data arrayed in tabular fashion there is less chance of overlooking a small but significant fact when weighing relative strengths and weaknesses of competing candidates.

In selecting a nurse for employment, a manager should consider factors in addition to the candidates' educational preparation and work history. Each candidate's appearance, manner of speech, and interpersonal skills should be assessed with reference to job demands.

During the preemployment interview a manager can evaluate the suitability of an applicant's grooming and attire, vocal volume and tone, extent of vocabulary, skill in verbal and nonverbal expression, warmth and openness. The applicant should be questioned about preference for solitary or group activities as well as community interests and involvement. Letters of reference may reveal useful information

about the applicant's personal characteristics, interpersonal skills, and social style. Personal characteristics should be weighed when selecting a nursing service staff member, because in most nursing service positions the incumbent must work cooperatively with a variety of health workers and communicate with patients of different ages, classes, sexes, races, and cultures.

In deciding an applicant's suitability for employment, the manager should also investigate the applicant's health status and attendance record during previous employment. A manager may seek this information from an applicant during the preemployment interview, but some applicants will not report health information accurately. For this reason, it is advisable to ask an applicant's previous employer to comment on the applicant's attendance record in the former position. Unfortunately, fear of suit by a former employee causes some health agencies to answer any request for reference with a form that states simply, "Ms. X was employed in this institution from January 3, 1980 to July 3, 1993." Some institutions will also indicate whether or not they would rehire the individual.

Finally, after weighing the relative strengths and weaknesses of all applicants who were interviewed for a given position, the manager should decide quickly which applicant is pre-

ferred and should promptly extend a job offer, in writing, to seal an agreement with the chosen individual. Delay in offering employment to a selected applicant may result in losing a promising employee to a more opportunistic competitor (Peringian and Skeegan, 1984).

ORIENTATION

After needed personnel have been appointed to vacant positions in a nursing department, the new employees should be readied for work through a planned orientation program. Orientation is the process of acquainting a new worker with the work environment so that she or he can relate quickly and effectively to new surroundings. The purpose of orientation is to make the new employee feel wanted and needed by coworkers and superiors and to convince the employee that her or his presence is important to achievement of agency goals.

Orientation for a new nurse consists of two parts: instruction given to an employee to acquaint her or him with the agency's overall purpose and function, and instruction concerning specific job tasks that the employee must perform.

Induction Training

The first aspect of orientation, indoctrination, should be standardized for all agency employees. Indoctrination is often referred to as induction training, because its purpose is to lead the outsider into the agency and help her or him to locate comfortably within the new physical and social environment. Induction training includes introduction to rules, regulations, policies, and procedures that apply to all agency employees (Buickus, 1984). Indoctrination begins with an explanation of the agency's history, purpose, and structure and is followed by information about conditions of employment, worker identification, working hours, holiday time, vacation allowance, sick time, position classification, performance standards, performance evaluation, labor contracts, grievance procedure, paydays, parking facilities, eating fa-

cilities, health services, laundry services, and educational opportunities (Huston and Marquis, 1989). Personnel policies and procedures change so rapidly that nurse managers or administrators cannot keep up-to-date with the most recent guidelines. Therefore, a personnel department employee should inform inductees about key personnel policies and answer their questions about applying these policies to specific situations.

Only two or three days are devoted to induction training. However, more information about the agency, employment conditions, and employee benefits is presented during induction than employees can assimilate and remember. Therefore, indoctrination information should be assembled in a small handbook and given to the new employee for later reference. To make the policy manual as useful as possible, induction trainers should cross-index all topics in the manual and point out the location of major topics discussed during induction training. Table 13-2 is a sample index for an employee handbook. Note that content includes information about employee responsibilities and agency obligations.

Induction training should be provided during the employee's first two or three days in the agency, for two reasons. First, the purpose for induction is to provide the newcomer with information to enable her or him to feel at home and identify with agency goals and programs. The employee is most in need of such information during the first week of employment. Second, as soon as the new employee begins to work, she or he will acquire considerable information about working conditions and personnel policies from coworkers. Often, this information is distorted by coworkers' prejudices and misunderstandings. Consequently, the orientee's first exposure to organizational structure, job classification, time policies, performance evaluation, grievance procedure, and the like should be delivered in organized fashion by a well-informed representative of agency administration.

Table 13-2 Index for Employee Handbook

Affirmative Action	Identification badge	Recreational activities
Appearance	Incident reports	Resignation
Attendance	Job description	Retirement
Bereavement pay	Job opportunities posting	Safety program
Bulletin boards	Jury duty	Savings bonds
Business office: hours and service	Labor relations office	Seniority
Cafeteria	Laundry facilities	Shift differential
Career advancement	Layoff	Shift rotation
Code of conduct	Leaves of absence	Shuttle bus
Collective bargaining	Library facilities	Sick pay
Continuing education	Life insurance	Social security
Conventions	Lost and found	Telephone calls: personal
Demotion	On-call assignment	Temporary status
Diagnostic services	Orientation	Termination
Disability	Overtime work	Time clocks and timekeeping
Disaster	Parking	Training
Disciplinary action	Part-time status	Transfers
Educational opportunities	Paycheck	Transportation: public
Employees' health services	Payday	Uniform requirements
Equal Employment Opportunity	Payroll deductions	Union activities
Exit interview	Pension fund	Vocation
Fire procedures	Performance evaluation	Vending machines
Fringe benefits	Physical examination	Volunteer services
Gift shop	Probationary status	Voting
Grievance procedure	Promotion	Wage increases
Health insurance	Punctuality	Work schedule
Holidays	Recall rights	Working hours
Hospital: description of	Reclassification	

Customarily, employees from several job classifications are combined in each induction class. This is done to save the time and energy of induction trainers and to foster interdisciplinary team building among employees. Employees are more open to cross-disciplinary linkage before their assimilation into primary work groups.

A new employee's lack of information about the agency renders her or him especially susceptible to influence by authority figures. It is easier to sway an employee to an organizational point of view during induction than after she or he becomes more at ease in the work setting.

The most common disadvantage of induction training is that too much information is presented to the employee before she or he has felt need for it. Hoping to speed new employees' incorporation into the work force, some trainers unwittingly attempt to pack all the information they have acquired about the agency into a two- or three-day induction program.

The selection of appropriate content for an induction program requires the trainer to consider the percentage of inductees who will need each item of information and the immediacy of their need. To facilitate personal budgeting, every employee needs to know dates for pay-

check distribution. If few employees transfer from one agency unit to another, there is little need to give inductees detailed information about the procedure for requesting transfer of assignment. At some time during employment an employee may suffer unfair treatment by a manager. Therefore, inductees should be told whether there is an official grievance procedure by which employees may seek redress of wrong. When a grievance procedure has been established, inductees should be given general information about the procedure, such as the number of procedure steps, time limits between steps, agency representatives involved in each step, worker's right to peer representation, and opportunity for arbitration. During induction it is unnecessary to demonstrate the official grievance form, name union stewards and labor representatives, or specify the time limits between steps, because these details would be forgotten with time, but they could easily be determined should the employee later invoke the grievance procedure.

Job Orientation

After induction training is completed, an employee should be oriented to the position for which she or he was hired (Fig. 13-1). Nursing

departments differ regarding the length, form, and content of nurses' orientation programs. In many agencies a two-week orientation is given to nurses who are assigned to a general ward, while a three- or four-month orientation is given to nurses in operating rooms or intensive care units. In some agencies a three-month orientation is given to all new graduate nurses to minimize reality shock during the transition from student to employee status (Minor and Thompson, 1981). A few agencies provide six- or twelve-month internships to new graduate nurses (Tonges and Jones, 1984). Occasionally, an agency will provide separate orientation for associate degree nurses, because clinical laboratory hours in the associate degree program is about 66 percent of that in a diploma program (Brunt, 1984). In one hospital, after associate degree nurses were given a six week orientation covering quality-assurance activities, problem-oriented charting, nursing care plans, nursing process, hospital policies and procedures, and team-leading activities, it was necessary to hire an administrative clinical coordinator to help the associate degree graduates to adjust to assigned clinical duties (Brunt, 1984).

An orientation program may be centralized or decentralized, standardized or individualized. A central corps of in-service instructors may orient personnel for all clinical nursing units, or there may be a staff member in each nursing division or unit (often a clinical nurse specialist) who orients nurses to that area. When a standardized orientation program is followed, all newly hired nursing personnel attend the same orientation sessions, regardless of educational background or work experience. When orientation is individualized, some group orientation sessions are prescribed, and additional experiences are designed to supplement and complement the employee's previous experience.

The philosophy and framework for nurses' orientation should reflect the agency's philosophy and purpose. In one health agency the registered nurse orientation program was based on Maslow's hierarchy of human needs (Buickus,

MEMO CAPSULE

Induction Training

- Agency history, purpose, structure
- Employment policies and work hours
- Holiday and vacation allowance
- Sick-time benefits and employee health services
- Position classification and promotion opportunities
- Labor contracts and grievance procedure
- Pay rates
- Parking and eating facilities
- In-service, continuing education, and tuition reimbursement

RN Orientation: Rehabilitation Unit

Monday

- 7:00–7:30: Welcome
- 7:30–8:00: Introduction: Nurse manager, clinical nurse specialist, medical director
- 8:00–8:30: Unit goals, philosophy, objectives
- 9:00–10:00: Nursing department policies, policy books
- 10:00–10:30: Work hours; staffing system and procedures
- 10:30–11:30: Work schedules; time sheets
- 11:30–12:00: Primary nursing assignment: Size and character of caseload
- 12:00–1:00: Lunch
- 1:00–3:30: Shadow a primary nurse on the rehabilitation unit

Tuesday

- 7:00–7:30: Schedule of patient care routines, therapies, recreation, visiting hours
- 7:30–8:30: Care measures for poststroke patients: Nursing, PT, OT, speech
- 8:30–9:30: Computerized patient record
- 9:30–10:30: Documentation of nursing care
- 10:30–11:30: Preparation of nursing care goals and nursing care plans
- 11:30–12:00: Nutrition services: ordering meals and snacks, weighing schedules
- 12:00–1:00: Lunch
- 1:00–3:30: Shadow a therapist in physical therapy department

Wednesday

- 7:00–7:30: Purpose, participants, time of multidisciplinary care conferences
- 7:30–8:30: Care for head injury patients: Nursing, PT, OT, speech, psychology
- 8:30–9:30: Specialized beds, mattresses, pillows to prevent decubiti, contractures
- 9:30–10:30: Computerized pharmacy order and medication administration system
- 10:30–11:30: X-ray, clinical laboratory ordering, scheduling, reporting systems
- 11:30–12:00: Rehabilitation unit volunteers: Services provided
- 12:00–1:00: Lunch
- 1:00–3:30: Shadow a therapist in occupational therapy department

Thursday

- 7:00–8:00: Cardiopulmonary resuscitation, fire, and disaster procedures
- 8:00–9:00: Care for spinal cord injured patients: Nursing, PT, OT, respiratory
- 9:00–10:00: Electronic devices to facilitate movement, speech, environs control
- 10:00–11:00: Recreational and home visiting programs for spinal cord patients
- 11:00–12:00: Sexual counseling for spinal cord-injured patients
- 12:00–1:00: Shadow a primary nurse on a home visit to a spinal cord patient

Friday

- 7:00–8:00: Assessing patient's suitability for admission to rehabilitation unit
- 8:00–9:00: Care for patients with arthritis, amputation: Nursing, prosthetist, PT
- 9:00–11:00: Implants, prostheses, electronic devices for arthritis, amputation patients
- 10:00–11:00: Community groups providing support to rehabilitation unit patients
- 11:00–12:00: Procedure Book: care routines for neuromuscular, pain, cancer patients
- 12:00–1:00: Lunch
- 1:00–3:30: Observe a rehabilitation unit nurse assess a patient for admission to unit

Figure 13-1 Sample job orientation for Hospital XYZ.

1984). An orientation based on Maslow's theory would start by addressing the orientees' physical needs, then focus on their needs for safety, affection, and esteem, and would end by providing them with experiences in which they could achieve self-actualization. In several agencies the framework for the nurse's orientation program is the nursing process (Brunt, 1984; Minor and Thompson, 1981). An orientation modeled on the nursing process would devote early sessions to assessment techniques and use of assessment information, followed with sessions on nursing care planning, instruction in nursing skills (interventions); and would close with experience in evaluating the structure, process, and outcomes of nursing care.

In one ambulatory care setting orientation for new nurses consisted of eight self-learning modules that covered the following topics: general introduction; individualized care; independence and involvement; continuity of care; privacy and confidentiality; financial integrity; health maintenance; and safety. Each module included a statement of competency to be developed, performance standards, learning steps, learning resources (videotapes, books, articles), and a contractual learning agreement (O'Neal, 1986). In a West Coast hospital newly hired nurses contract with the in-service instructor for a two- or three-week orientation, the length and content of which are individualized to fit the newcomer's previous experience and identified learning needs (Huang and Schoenknecht, 1984).

The content for each unit's orientation program should be selected by nurses who practice in that specialty. In planning an orientation program for medical nurses, the divisional director of medical nursing might appoint an orientation committee consisting of a manager of the medical intensive care unit, a manager of a renal unit, a staff nurse from a coronary care unit, and a practical nurse from a general medical unit. This group should plan the orientation for each classification of personnel in the medical nursing division, with assistance from the in-

service director or instructor, who is likely to know more about teaching strategies than a manager or staff nurse. However, staff nurses can better judge the knowledge and skills needed to care for patients in their own unit. Clinical nursing personnel should plan the orientation for patient care personnel, soliciting help when needed from educational psychologists, teachers, and technologists to refine objectives, select instructional content, prescribe learning experiences, and design evaluation tools.

After the staff nurse's orientation is planned by clinical personnel in the same division or unit, the plan should be implemented by the nurse's immediate supervisor or a clinical nurse specialist designated by that supervisor. This arrangement is desirable, because the nurse's immediate superior understands the orientee's job-performance standards better than anyone else, and the orientee will give greater importance to orientation content provided by her or his immediate superior.

Adult Education Theory

Throughout induction and orientation, adult education theory should be used to select instructional content and methods. The following principles of adult education should be followed in orienting nurses. Education is planned experience that results in a behavior change in a desired direction. Human behavior is strongly controlled by habit, so major behavior change is difficult to effect and painful to experience. Learning is an active, rather than passive, phenomenon; that is, it occurs only through activity by the learner (Brooks, 1985). Adults are strongly motivated to learn or change behavior only when they perceive an immediate, practical advantage from the new knowledge, skill, or attitude. Adults learn best when in a state of disequilibrium. Therefore, learning can be facilitated either by creating dissatisfaction with present behavior or by making the changed view of self more attractive than the present one. An adult learns best when she or he retains control

over the content to be learned and the methods by which learning occurs. A teacher can give a learner control over content and method by allowing her or him to set personal learning goals and performance standards. A learner is stimulated to try out new behaviors by a teacher who inspires trust, encourages openness, and reduces the threat of failure. As role model for an adult learner, a teacher provides positive and negative cues that shape a learner's behavior in one direction or another.

Many methods and materials that are used to orient nurses are based on adult education concepts (Flewellyn and Goshell, 1985; Kilbride, 1984). A newly hired nurse may be asked to complete a skills checklist to differentiate nursing techniques that she or he can execute without assistance from those she or he can perform with minimal supervision or cannot perform at all. Using the checklist as guide, the manager or trainer can design an orientation to help the newcomer master the lacking nursing skills. Using a skills checklist to individualize orientation derives from the principle that adults learn best when they perceive immediate and practical application of that learning to personal concerns.

Internships

In some agencies a 6- or 12-month internship is provided to nurses who are hired immediately on graduating from nursing school. As discussed in the section on recruitment, internships are sometimes used to attract associate and baccalaureate nurse graduates, because the scant clinical experience in these programs makes it impossible for the new nurse to practice comfortably in an independent role. Schmalenberg and Kramer (1976) attribute young nurses' reality shock to the incongruity between the nursing role that their school prepared them to assume and the nursing role imposed by the bureaucratic health agencies that employ them. In confronting a first job, a neophyte nurse is overwhelmed by the volume and complexity of job responsibilities. As a student, the

nurse was encouraged to focus on personal learning needs; as an employee the nurse is expected to focus on care needs of a large group of patients.

In the typical internship, an intern advisor or preceptor may provide guidance to five or six nurse interns. The intern advisor is usually an in-service teacher but may be an experienced staff nurse with a flair for clinical teaching. The advisor meets weekly with interns, singly or as a group, to discuss the interns' progress and problems. While conferring with the unit nurses who supervise the interns as they rotate through several units, the advisor suggests patient assignments and other experiences to meet each intern's unique educational needs. Sometimes, the intern is allowed to select two or three units to which she or he will be assigned during the internship. In some programs, the intern may elect to spend the entire six-month internship on the same medical-surgical unit or to spend three months on a medical or surgical unit and three months on an obstetric or pediatric unit. Generally, rotation to the operating room or intensive care unit is permitted only if the internship lasts a year, because four to six months are needed for the orientation to a specialty area, and most interns need experience in a general unit before they are ready for experience in an intensive care unit.

When interns choose the units to which they will be assigned, it is customary for the intern advisor to group interns from all units for a weekly conference. The group conferences are used to amplify and interpret interns' learning from clinical experience. Conferences may be used to introduce interns to the concepts of nursing diagnosis, continuous quality improvement, cost containment, crisis intervention, primary care, and predischARGE planning or to enhance skills in patient assessment, care documentation, and peer evaluation.

The internship provides a new nurse with emotional support from fellow interns and advisor or preceptors during the transition from student dependence to professional indepen-

dence. The self-confidence that results from continuing skill development is thought to decrease turnover among nurses who complete an internship. The internship is based on the adult education principles that learning is an active phenomenon (learning by doing) and that learning is facilitated when the learner controls the content and method (intern selects the clinical laboratory).

In one agency the internship was designed to support the nurse's progress through four levels of performance. In the first level the nurse was expected to provide care to patients with uncomplicated health problems. In the second level, the nurse was expected to provide education to patients, family members, and nursing staff members. In the third level, the nurse was expected to apply basic leadership skills in setting priorities, solving problems, and serving as team leader. In the fourth level, the nurse was expected to develop basic leadership skills used in problem solving, priority setting, and team leading (Minor and Thompson, 1981). Throughout the internship nurses needed specific guidance in making clinical judgments, solving care-delivery problems, and organizing time and effort.

Preceptor System

In some agencies a preceptor system is used in orienting new employees to job responsibilities (Flood and Rizzo, 1984). A newly hired staff nurse is paired with an experienced staff nurse in the same unit. Two nurses are scheduled for the same work hours and assigned to care for the same patients. The more experienced nurse is responsible for documenting the newcomer's mastery of needed nursing skills on a skills checklist that was developed during induction training. Use of a preceptor system is based on the adult education principle that a role model shapes a learner's behavior by narrowing the range of acceptable behavior through a system of social reward and punishment.

In one university hospital new graduates

were oriented for work in Pediatric Intensive Care Unit (PICU) by means of a dual-preceptor system. In this agency, PICU staff nurses at the advanced beginner and proficient stages of practice proved more effective than expert practitioners as preceptors for new graduate-orientees. Apparently, the expert nurse's reliance on intuitive decision making makes it difficult for the expert to explain the logical basis for her or his nursing interventions to an inexperienced nurse-orientee (Janvrin, 1990).

SUMMARY

The first step in assembling the required numbers and types of personnel to execute required nursing work is to secure for each vacant position a pool of applicants who can fulfill the job's requirements. Applicants should be solicited from within and from outside the agency and possess cultural, educational, and experiential characteristics that meet the needs of agency clients. Current staff members should assist with the recruitment of new members of the agency's work force to ensure the effective assimilation of newcomers into the organization's informal structure. When several applicants have been identified for a particular position, the manager should measure the strengths and weaknesses of each candidate against skill and ability requirements for the position.

Even the most capable recruit cannot succeed in a job unless she or he is acquainted with the agency's structure, specific responsibilities of the new position, and interrelationships of that position with others. All new employees require induction training to enter gracefully into the agency and into proper relationships with coworkers. In addition, all new employees need clear specifications of job responsibilities and training for the required skills that they do not possess. The character of induction and orientation sets an employee's attitudes toward the agency and determines the likelihood of successful adjustment to the new surroundings.

RESEARCH BRIEF

Recruiting Staff Nurses

Purpose: Explore short- and long-range outcomes of using different sources of nurse recruitment

Sample: Thirty-two acute care hospitals in Oklahoma.

Method: The nurse recruiter at each hospital described the nurse-recruitment selection procedure and kept a log for three months containing name of each applicant, dates of contact with applicant, and action taken at each step of recruitment or selection, until the applicant either began work, was rejected, or rejected a job offer. A questionnaire was distributed to each applicant on initial contact asking the source used to recruit the individual. The costs of each recruiting advertisement were recorded. One year later, turnover and performance data were obtained for each nurse recruited during the three-month study period. In all participating hospitals, supervisors evaluated recruits on the same performance-evaluation scale. Data were used to calculate recruitment yield ratios, turnover rates, and average performance ratings for each recruiting source

Results: Newspaper advertisements generated

the greatest number of applicants in the shortest time, but only 50 percent of these applicants were hired. A smaller percentage of applicants was hired from college recruiting than from any other source. Nurses hired from walk-in applicants and newspaper advertisements had the highest one-year performance ratings, but those hired from clinical rotations and college recruiting had the highest retention rates. Newspaper advertisements generated the greatest number of experienced applicants; clinical rotations generated the greatest number of inexperienced applicants

Application: Recruitment sources differ in their short-term results (number of applicants, number of new hires) and long-term results (retention rates, performance ratings). In each recruitment drive, executives should target the recruitment source that best satisfies current staffing goals. If the principal need is for experienced nurses, newspaper advertisements should be used. If the principal need is to ensure the retention of nurses who are given lengthy, expensive orientation, efforts should be focused on increasing clinical rotations and college recruitment.

Source: Labig, C. Effectiveness of recruiting sources for staff nurses. *Journal of Nursing Administration* 2: 7-8, 1990.

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Scheduling

Shift rotation is against nature.

GERALDENE FELTON

OBJECTIVES

After reading this chapter, you should be able to:

- 1 Design a cyclical staffing schedule for all nursing service personnel on your unit that will provide an adequate number of each category of personnel on each shift for forecasted numbers and types of patients.
- 2 Write policies to guide employees in reporting sick time and requesting special time off to support the cyclical staffing schedule for your unit.

Scheduling is a control measure in the staffing function. If staffing means assembling and readying the employees needed to fulfill the agency's mission, scheduling means planning patterns of on-off duty hours for employees in a particular unit. Appropriate work scheduling is a prerequisite for successful nursing operations, because patterning of working-nonworking hours directly affects employee productivity, work satisfaction, and job tenure (Capozzi et al., 1990; Choi et al., 1989; Colquhoun et al., 1969; Fitzpatrick et al., 1987).

There are several steps in determining employees' on- and off-duty time. After analyzing the unit's work flow, the manager must deter-

mine hours of maximum and minimum workload so as to decide hours of peak and least need for employees in each category. Using positions budgeted and filled, the manager should determine a pattern of on-off duty hours that will provide the desired number of each category of personnel for each hour of each day. The manager should plan each employee's work hours for four to eight weeks, so as to group available staff into desired configurations (taking into consideration employees' position categories and clinical abilities).

He or she should check the completed schedule for errors, such as names omitted, requested and approved holidays or vacations not pro-

vided, inadequate numbers of personnel during peak work periods, and improper mix of personnel for specific hours of the day. The manager may be required to secure approval of the proposed time schedule from the divisional nursing director (this step is omitted in agencies with decentralized decision authority) and should post time schedules to notify employees of assigned duty several weeks in advance and update the schedule daily to adjust staff numbers to continually changing nursing workload. Finally, the manager should review schedules and scheduling policies regularly to identify staffing problems that require changes in the master schedule.

Although scheduling is only one phase of the staffing function, it is pivotal for unit productivity and employee morale. By using industrial engineering methods and computerization, a manager can determine the number of each category of worker that will be needed to care for the expected numbers of patients (Jecmen and Stuerke, 1983). If scheduled improperly, nurses are unable to fulfill the responsibilities for which they were hired. On the other hand, scheduling improvements may enable a manager to obtain more work from fewer employees. If unable to obtain additional employees for an increased unit workload, a manager can sometimes shuffle existing schedules to create different worker configurations, so that the same number of employees can handle a larger workload—at least temporarily.

SCHEDULING POLICIES

There should be department- or division-wide scheduling policies to guide managers in distributing desirable and undesirable work hours equitably among employees. Nurse managers as a group should establish policies that designate:

1. The person, by title, who is responsible for preparing employees' time schedules
2. The time period to be covered by each work-time schedule

3. The number of weeks in advance that employee time schedules must be posted
4. The total on-duty hours required for each employee per day, week, or month
5. The day that starts the work week (Sunday? Monday?)
6. The beginning and ending hour for each work shift
7. The amount of time allowed for work and meal breaks
8. The number of shifts to which each employee must rotate
9. The required frequency of shift rotation
10. The conditions under which an employee may be "floated" to another unit
11. Whether days off must be scheduled two in each week or an *average* of two days off per week
12. The definition of "weekend off" for night-duty personnel (Friday and Saturday night? Saturday and Sunday night?)
13. The number of weekends per month that an employee must work
14. The required minimum of days off in sequence
15. The minimum time interval between sequential work shifts (8 hours? 16 hours?)
16. The number of paid holidays per year
17. The number of holidays per year on which employee must be off-duty
18. The amount of advance notice that must be given employees regarding holiday on-off duty schedule
19. The procedures to be used by employees in requesting off-duty time for a specific holiday
20. The number of paid vacation days for employees in each worker category
21. The amount of advance notice given employees regarding scheduled vacation time
22. The procedure an employee is to follow in requesting vacation time
23. The restriction on vacation scheduling

during Thanksgiving-Christmas-New Year holidays

24. The maximum number of personnel in each worker category that can be scheduled for vacation or holiday on same date
25. The procedure for resolving employees' conflicts about vacation and holiday time requests
26. The procedure for handling "emergency" requests for adjustment of time schedules

Certain issues should be considered when scheduling employees' work time. First, there is a tendency for the person responsible for scheduling employees' work hours to be considered a manager (and to reflect the philosophy of administration), regardless of that individual's job title. Hence, a scheduling clerk acquires an elevated status in the eyes of personnel and so, should be trained to reflect an attitude of responsibility toward divisionwide and agency-wide productivity. Second, employees' work hours are regulated in part by federal and state laws, in part by custom and historical precedent, in part by labor contracts. All of these sources should be consulted before altering the agency's employee scheduling system.

Third, the length of a worker's rotation period, from one shift to another or one unit to another, affects care continuity and worker morale. Moreover, shift and unit rotations are often addressed in labor contracts, so managers should inform contract negotiators of service-delivery problems that derive from present rotation policies. Fourth, the time for advance posting of work schedules and advance planning of holiday or vacation time influences an employee's ability to plan family celebrations, social events, business appointments, and school schedules. Therefore, work schedules are frequently addressed in labor contracts. The amount of time spent in wrangling over contract language relating to these topics indicates employees' depth of feeling about these work ben-

efits and suggests the degree of care needed to establish and implement relevant policies. Fifth, the frequency of weekends off and shift rotation determine the amount of time an employee can spend with spouse, children, or friends who work regular business hours. Consequently, employees compare their own work schedule with coworkers' schedules to ascertain whether weekend and shift assignments are equitably distributed. A manager should promptly investigate and remedy an employee's complaint of unequal allocation of "premium" holiday and vacation time. Sixth, the day on which the workweek begins determines the number and frequency of weekends and pattern of on- and off-duty days for employees who work 10 hours per day, 4 days per week. Managers should work out tentative schedules for nursing personnel on several work-time schedules to determine which workweek starting day provides "premium" weekend assignments for the greatest number of employees. Seventh, scheduling an average of two days off per week rather than an absolute two days off each week makes it possible to schedule more three-day and four-

MEMO CAPSULE

Scheduling Policies Needed

- Time covered by each schedule
- Dates for posting schedules
- Day beginning the workweek
- Number of work hours per week
- Beginning or ending times for shifts
- Length of mealtime, break time
- Frequency of shift rotation
- Number of sequential days off
- Number of sequential workdays
- Number of weekends off per month
- Minimum time between work shifts
- Number of paid holidays per year
- Number of holidays off per year
- Method for allotting holiday time off
- Method for allotting vacation time

day weekends for employees. Managers should discuss the effects of the two policies in staff meetings before labor contract negotiations between management and the nurses' union.

SCHEDULING RESPONSIBILITY

Traditionally, the head nurse or patient care manager is responsible for scheduling work time for all unit nursing personnel. Work schedules must be prepared several weeks in advance (to accommodate employees' personal lives and forecast the cost of temporary staffing) and modified at intervals to accommodate changes in patient census and acuity and employee illness and absence. Consequently, much of the unit manager's time is spent in preparing and adjusting employee work schedules.

CYCLICAL SCHEDULING

The head nurse or patient care manager can minimize time spent in planning employees' work schedules by using cyclical scheduling. This technique consists of assigning workdays and shifts for unit employees according to a predictable and repeating pattern to ensure the availability of appropriate numbers and types of workers to facilitate care continuity and work group constancy (Marchionno, 1987). A plan for cyclical scheduling of personnel should be based on the following principles:

1. The assignment cycle should balance agency need for labor coverage with employee's need for a well-rounded life.
2. The assignment pattern should distribute "good" and "bad" work days and hours equitably among employees.
3. All employees should be assigned according to the cyclical pattern.
4. Once the cyclical schedule is established, individual deviations from schedule should be rare and granted only on an employee's written request for a schedule change.
5. The cyclical method of scheduling should be well publicized and implemented, so

that employees do not find the schedule unduly controlling.

6. The pattern of assignments should ensure an adequate number and a desired mix of employees on each unit for all shifts.
7. The assignment pattern should promote the continuity of patient care by minimizing floating personnel and prolonging contact between patient and primary caregiver.
8. The assignment cycle should foster teamwork by maintaining a constant composition of primary work groups.
9. Each employee should be notified of her or his work schedule enough in advance to permit reasonable planning of personal, business, and educational activities.

MEMO CAPSULE

Advantages of Cyclical Scheduling

- Fair distribution of good and bad workdays and work hours
- Adequate number, mix of employees during peak workload
- Possibility for employees to plan family and social events in advance

Figure 14-1 shows two patterns of cyclical scheduling. Note that the schedule repeats itself every six weeks in the first pattern and every eight weeks in the second. Note, too, that the first pattern provides more weekends for staff than the second does.

CAUSES OF OVERSTAFFING

As indicated earlier, two factors that escalate nursing personnel costs are (1) frequent, unpredictable variations in patient census; and (2) the tendency of managers to staff for maximum rather than average or minimum census. Many

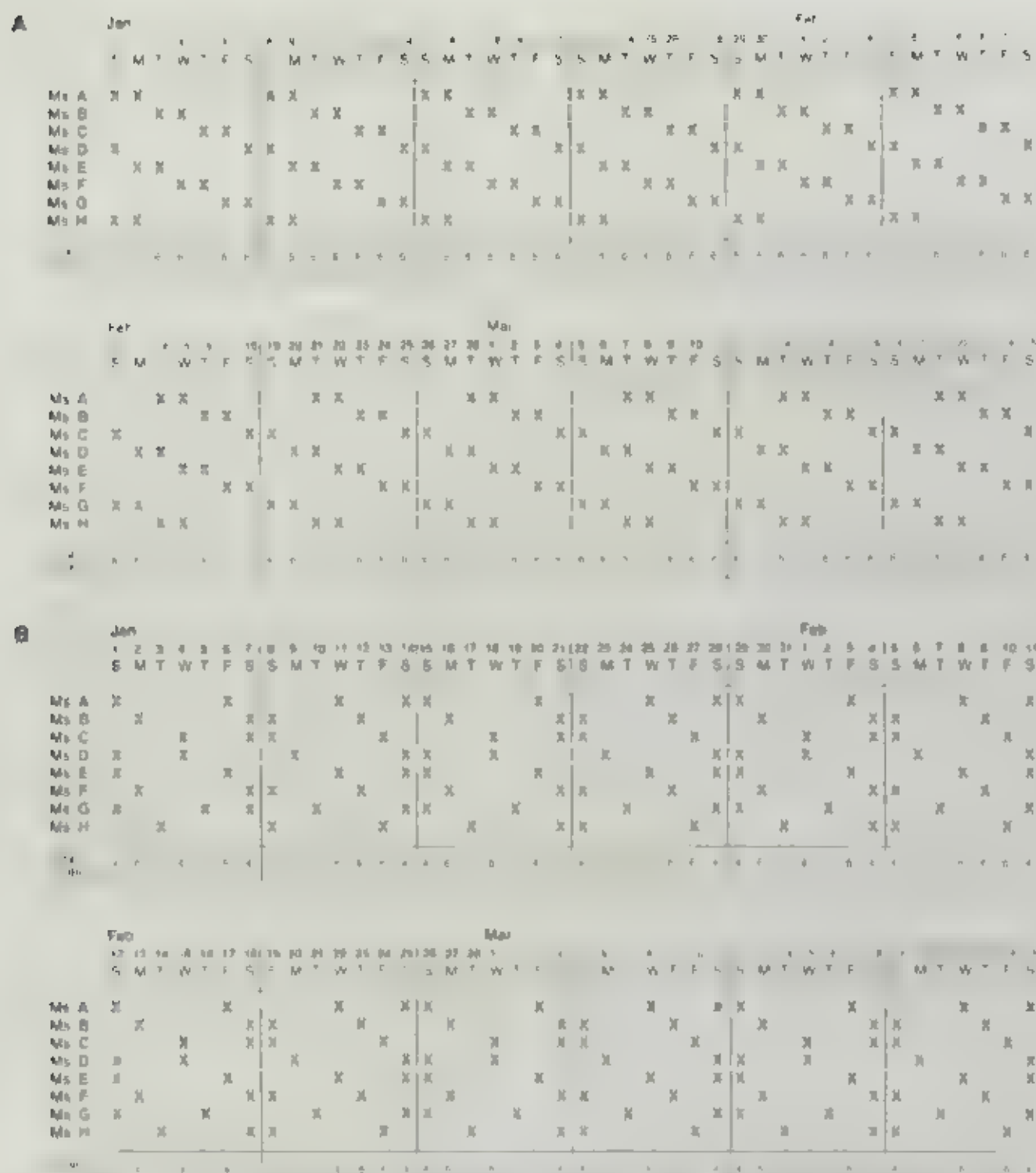


Figure 14-1 Two patterns of cyclical scheduling. A, Nurses have consecutive days off and change schedules every six weeks. B, Nurses have every other weekend and no more than four consecutive days on duty. X = day off.

factors motivate a unit manager to staff for maximum census. Among them are patient complaints of unfeeling care from harried nurses, physicians' increasing delegation of diagnostic and therapeutic procedures to nurses, and

nurses' growing assertiveness in questioning workload volume.

A timed unit manager may habitually staff for maximum census to avoid complaints and criticism from nurses and physicians. An inex-

perienced manager may habitually overstaff the unit, because she or he lacks the public relations skills needed to resolve patient complaints about service omissions. Whatever the motive, habitual overstaffing will seriously inflate personnel costs. For the agency to survive financially, top administrators must buffer first-level managers from those critics who pressure them to staff for maximum census.

CONTROLLED VARIABLE STAFFING

One way to decrease personnel costs while reducing patient, physician, and nurse complaints about occasional understaffing is the use of a controlled variable staffing system. As the name implies, this method permits the variation of staff numbers when workload increases or decreases and limits the amount of supplementary staff used during periods of increased work volume.

A popular form of variable staffing provides *minimum* level of basic staffing for each nursing unit and augments this minimum, if indicated by continually updated patient census data. For example, patient census on a medical unit might range from 24 to 33. Studies might show that, to care for 24 patients, of which 20 percent are self-care, 45 percent are partial care, 30 percent are total care, and 5 percent are intensive care, five RNs, two LPNs, and one nurse aide are needed on the day shift; three RNs, two LPNs, and one aide on afternoon shift; and two RNs, one LPN, and one aide on the night shift. Studies might show that, to care for 33 patients divided similarly among the four care categories, six RNs, three LPNs, and two aides are needed on days; four RNs, three LPNs, and one aide on afternoons, and two RNs, two LPNs, and one aide on nights.

Using controlled variable staffing, five RNs, two LPNs, and one aide would be permanently assigned on the unit's day shift. Using the 3-2 budgeting rule described earlier, 12 full-time personnel would be budgeted for the day shift to meet the daily requirement for eight nursing personnel. At the beginning of each shift, the charge nurse would update the patient census,

count patients in each care category, and send a staffing adjustment report to the central nursing office to indicate whether and in which direction staffing needs had changed since the previous shift. If an increase in patient census or acuity has increased nursing workload, the charge nurse would determine from a preplanned scale how many additional personnel in each category would be needed to meet current workload, and additional personnel would be provided (Fig. 14-2).

In order to concentrate higher numbers of staff during periods of peak workload and accommodate employees whose family or school responsibilities make it impossible to work five days a week, managers may schedule employees in nontraditional combinations of four-, ten-,

Number of Patients



Figure 14-2 "Factoring in" float and registry personnel on top of core staff in a unit with census above minimum

and twelve-hour shifts (Aggarwal and Lamont, 1983; Arnold and Mills, 1983; Diaz et al., 1986; Kellman, 1983; Lant and Gregory, 1984; Ricci, 1984; Stanton et al., 1983; Vik and Mackay, 1982).

For employees, the advantages of three 12-hour shifts per weeks are: improved communication between shifts, decreased weekly transportation time, and extended time for leisure or social activities (Gresk, 1991). The chief disadvantage of a 10- or 12-hour day is greater fatigue at the end of the shift (Arnold and Mills, 1983; Vik and MacKay, 1982). For employers, the advantage of 12-hour shift schedules is a decrease in employee absence, less need for overtime personnel, and decreased personnel turnover (Jones and Brown, 1986; Lant and Gregory, 1984). For employees, advantages of the ten-hour, four-day week schedule are a longer period of shift overlap, which provides additional personnel during periods of peak workload, and three sequential days off duty, which decreases transportation time and makes time available for family projects (Hung, 1991; Kellman, 1983; Ricci, 1984). The disadvantage of the ten-hour shift is increased fatigue, but the problem is less pronounced with ten-hour shifts than with twelve-hour shifts. For the employer, the advantage of the ten-hour shift schedule is the ability to schedule maximum personnel during periods of peak workload without having to use personnel from supplementary agencies. A possible disadvantage is the fact that when too many nurses work a ten-hour shift, it is difficult to provide the third day off each week without jeopardizing scheduled three-day weekends of regularly scheduled staff members (Kellman, 1983).

While acknowledging the ability of extended shifts to increase nurse job satisfaction and retention, some nurse administrators fear that 10-hour and 12-hour shifts may increase worker fatigue to the point that patient care quality is diminished. Studies have shown that nurses who work extended shifts do experience greater fatigue than nurses who work 8-hour shifts (Jones

and Brown, 1986; Nelson and Blasdel, 1988). However, in some studies, work quality of extended shift nurses was no lower than that of 8-hour nurses (Capozzi et al., 1990; Fields and Lovendge, 1988).

Obtaining Additional Personnel

Agencies differ in their manner of providing additional personnel to a unit whose census exceeds minimum. Often, critical understaffing on one unit is remedied by temporary reassignment of nurses from a different unit. "Pulling" personnel from one unit to another is likely to cause anxiety and resentment in the transferred nurse, because of the difficulty in providing knowledgeable care in an unfamiliar setting. Pulling nurses from one unit to another also disturbs the informal communication network of both sending and receiving units (Vestal and Dean, 1981). These problems can be minimized by orienting newly hired nurses to two or three units and allowing them to choose one unit for home-base assignment (Tonges and Jones, 1985). Then, if it later becomes necessary to pull a nurse to another of these units, the nurse is somewhat familiar with the receiving unit, having spent time there during orientation. In some hospitals and clinics a pool of floating personnel is assigned to the central nursing office. Each floating nurse is oriented to personnel, patient problems, equipment, supplies, and work routines in several similar units. Floating personnel are then assigned daily by a nurse administrator to one or another unit to compensate for unexpected workload increases (Smith, 1981).

In some agencies there is no central pool of personnel to be deployed among needy units. Instead, each nursing unit maintains a roster of full- or part-time stand-by personnel who can report for duty on short notice (Wakefield and Mathis, 1985). When patient census increases or patient acuity escalates, the charge nurse calls in enough stand-by personnel to handle increased work volume.

If the agency has neither unit "on-call" rosters nor an internal float pool, additional nurses

may be obtained from supplementary nursing agencies. A supplemental agency differs from a nursing registry in that the former employs nurses and assigns them on a contractual basis to work in health agencies to meet variable staffing needs (Laird, 1983). A registry is a state-licensed referral agency, which does not employ nurses but provides nurse-clients with the names of hospitals or patients who need a nurse; whereupon the nurse contacts the hospital or patient and negotiates her or his own employment agreement (Kass, 1980).

In a severe nurse shortage, when a health agency employs numerous supplementary nurses, the agency's regular staff members may have difficulty assimilating the temporary nurses into the work force. Even when few supplementary nurses are used, they must be properly oriented, supervised, and evaluated to ensure high-quality care (Lewin and Brown, 1981; Prescott and Langford, 1981). Each nurse from a supplementary agency should be oriented to the agency's physical plant, shift routines, and nursing policies in detail on the outsider's first day in the agency. A supplementary agency nurse should also be *briefly* oriented to unit routines and personnel on each subsequent assignment to the agency, as experience in other settings will have caused them to forget some information about the agency. A nurse manager in the central nursing office should check the license of each supplementary nurse on each occasion that he or she reports for work, and the head nurse or patient care manager should evaluate the supplementary nurse's performance at

the end of each work shift. If a supplementary nurse's performance is unsatisfactory, the agency should be notified, so that the problem can be corrected or the nurse can be dismissed (Lewin and Brown, 1981).

Reasons for Using Variable Staffing

Personnel cost containment requires that some form of variable staffing or staff leveling be used by the nurse manager (Fig. 14-3). Variable staffing consists of minimal staffing, with augmentation of the minimum only during periods of increased workload. This approach decreases personnel expense, because routine operations can be accomplished with minimal staff and additional personnel can be obtained only through logic-based, reviewable actions by a nurse manager.

Staff leveling is the process of moving employees from areas of oversupply to areas of undersupply. Policies for staff leveling should be based on time study of patient care tasks in the same agency. The technique of staff leveling requires continuous updating of patient census and acuity data through each unit's submission of a staffing adjustment report to the central nursing office at the end of each shift.

Studies show that, if some form of variable staffing or staff leveling is not used, a health agency will pay for one to two more hours of care per patient-day than is actually delivered. This extravagance could render an agency ineligible for Medicare payments or state welfare department reimbursements.

SHIFTWORK

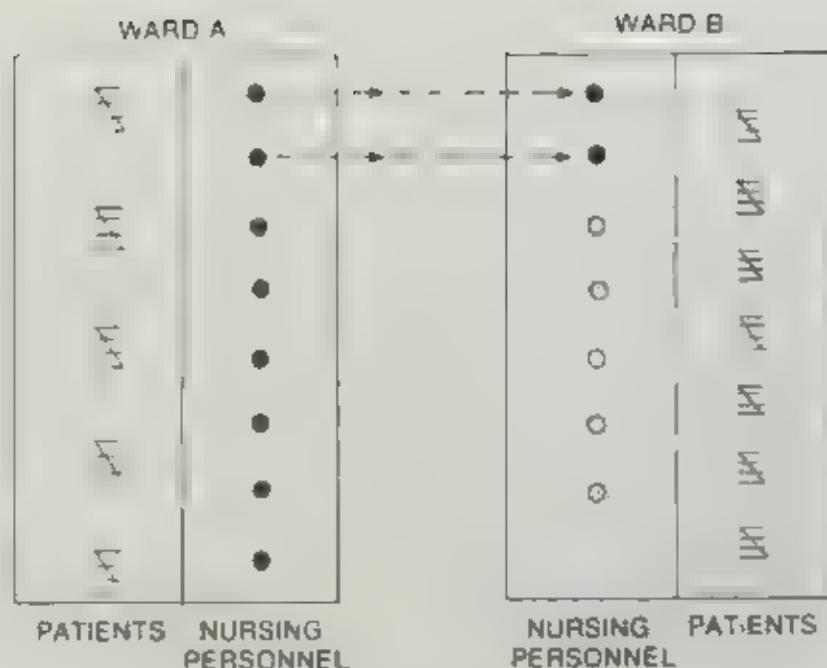
"Shiftwork" is defined as work that occurs when an individual is awake and working, but the day-oriented body would prefer to be asleep (Glazner, 1991). Studies show that most humans are day oriented, either genetically or through adaptation (Moore-Ede and Richardson, 1985). There is evidence that shift workers (day-oriented persons who work evenings and nights) have higher incidence of sleep-

MEMO CAPSULE

Source of Supplemental Nurses

- Overtime work by regular unit personnel
- "Float" nurses from other units
- In house staffing pool
- Commercial nursing registry
- "Traveling" nurses on contract to the agency

Figure 14-3 Staff leveling, or moving staff from one unit to another to equalize workload. In this example, the nurse-patient ratio on Ward A was 8:25, or 1:3+, before leveling; after leveling, it is 6:25, or 1:4+. On Ward B the nurse-patient ratio was 5:35, or 1:7, before leveling; after leveling, it is 7:35, or 1:5.



wake disorders, gastrointestinal disorders, cardiovascular disorders, and impaired family relationships (Taffa, 1984). There is also evidence of decreased work efficiency for the first few days after an individual's sleep-wake cycle has been disrupted—as by changing from one shift to another (Colquhoun et al., 1969).

This evidence leads experts to suggest that nurses be assigned to permanent shifts. When this is not possible, shift changes should be made infrequently, and the changes should be scheduled to follow the sun; that is, morning shift to

evening shift to night shift, rather than vice versa (Glazner, 1991). Experts also suggest that employee morale and job satisfaction can be improved by increasing the individual nurse's control over work time schedules, even permitting self-scheduling by nursing unit employees as a group (Horne and Ostberg, 1976; Ringl and Dotson, 1989).

SUMMARY

After the manager determines how many nursing personnel in each job category will be needed to deliver care to expected numbers of patients in each diagnostic or severity group, the manager must schedule personnel to provide adequate numbers of employees to meet periods of peak workload. The manager should avoid assigning more than needed personnel during any time period. A cyclical or repeatable schedule, using a combination of full- and part-time employees and combinations of 8-, 10-, and 12-hour shifts is usually more economical than a schedule designed from scratch for each 4-, 6-, 8-, or 18-week interval and using only full-time personnel in three eight-hour shifts.

MEMO CAPSULE

Disadvantages of Shiftwork

- Sleep-wake disorders
- Impaired family relations
- Decreased work efficiency (on shift change)
- Disruption of primary work group (alternating shifts)
- Conflict between day, evening, and night staff (permanent shifts)

RESEARCH DRIFT

Effect of Shift Length on Nurses' Critical Thinking

Purposes: Obtain information about the effects of 8- and 12-hour shifts on critical care nurses' fatigue level and critical thinking ability.

Subjects: One hundred two nurses in critical care unit of a 415-bed acute care hospital. 50 on 8-hour, 52 on 12-hour shifts.

Method: All subjects were tested on the first and last hour of their shift with the Three-Minute Basic Reasoning Test (TMRT) and Subjective Symptoms of Fatigue Test (SSFT). The TMRT consists of 164 index cards, each containing a short phrase, followed by a pair of letters. Subjects evaluate the phrase and pair of letters to determine whether the two are equivalent in meaning ("A follows B. BA"). The SSFT is 30-item Yes/No list to elicit subjective symptoms of fatigue, including such subcategories as drowsiness, concentration difficulty, and physical impairment.

Results: For all subjects, fatigue scores were significantly higher at the end of shift than at the beginning. Subjects' overall feelings of fatigue were no greater for the 12-hour than for the

8-hour nurses. However, scores on subcategories of fatigue were different from total fatigue scores. Only the subjective symptoms of drowsiness and physical impairment increased significantly during the workday; there was no increase in concentration difficulty. Twelve-hour nurses were significantly more drowsy than 8-hour nurses. Despite increases in subcategories of fatigue, neither 8- or 12-hour nurses showed decreased critical thinking ability during the shift. In fact, the total sample scored significantly higher on the critical thinking test at the end of shift than at the beginning.

Application: If these findings are typical of all hospitals, managers need not fear that changing from 8- to 12-hour shifts will increase nurses' error rates. However, to decrease drowsiness (and improve comfort) for 12-hour nurses, managers might expose the nurses to short sensory change episodes (exposure to colored light, rapid music, cool breeze, tart drink, aerobic exercise, at intervals during the shift).

Source: Fields, W., and Lovendge, C. Critical thinking and fatigue: How do nurses on 8- and 12-hour shifts compare? *Nursing Economics* 6(4): 189-191, 1988

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Patient-Classification Systems and Patient-Acuity Measures

The goal of staff allocation should be to minimize variations in staff size to workload ratio

RICHARD JELINEK

OBJECTIVES

After reading this chapter, you should be able to

1. Explain the difference between a prototype and a factor-type patient-classification system.
2. Explain the difference between a task-based and an acuity-based patient-classification system.
3. List five care descriptors that are commonly used in a factor-type patient-classification system.
4. Describe one means for establishing criterion validity of a factor-type patient-classification tool.
5. Describe one method for determining inter-rater reliability of the patient-classification tool that is used in your health agency.
6. Describe diagnostic-related groups.

Nursing labor costs constitute 20 to 30 percent of total hospital expenditures (Halleran et al., 1987). Governmental agencies and

private insurance companies are urging health care providers to improve health care quality at present or reduced expenditure levels. Nursing

care quality is highest when workload and staffing resources are properly balanced, or when staff-use rate ranges between 90 and 110 percent (Meyer, 1978). Serious understaffing impairs care quality, because overworked nurses lack time to perform essential protective and therapeutic measures. Marked overstaffing impairs care quality by encouraging excessive socializing among nursing personnel, which leads to relaxed practice standards and neglect of critical care measures. Understaffing, overstaffing, and an improper staff mix diminish nurses' job satisfaction and cause excessive turnover, with significant financial loss (the cost of replacing a departed nurse ranges from \$2,000 to \$3,000 [Beyers et al., 1983; Prescott and Bowen, 1987]).

MEASURING NURSING WORKLOAD

The first step in reducing health care costs is to determine the specific cost for each patient care service. Instead of billing each patient the same daily flat "room" rate, many health agencies now separate charges to the patient for room rent, food service, respiratory therapy, medical treatment by house staff, and nursing care. Patients differ in respect to the amount and type of nursing care they require. To bill patients fairly for services received, it is necessary to measure both the quantity and the quality of nursing care provided during each day of institutionalization.

For many years, patient census was the most common measure of nursing workload. However, nursing workload on a particular unit is determined not only by patient *number* but also by each patient's medical diagnosis, severity of illness, complexity of care, general physical condition, and social-psychological status. Even knowing the medical diagnosis of each patient in the unit does not indicate the unit's nursing workload, because the severity and stage of illness determine the complexity of care needed, and differences in age, sex, social background, personality, and premorbid health status influence an individual's response to care and treat-

ment. A computer analysis of 13,842 patients through 29,509 days of care demonstrated that medical diagnosis alone was not predictive of nursing workload, even for such "routine" diagnoses as normal infant delivery and tonsillectomy (Meyer, 1978).

Health agencies have used home-grown and commercially developed patient-classification systems to quantify nursing workload. Some agencies have implemented a centralized staffing system to adjust nursing staff numbers and mix for changes in unit workload. Nurses have used engineering methods to measure staffing needs accurately. In some agencies computer programs are used to deploy available nursing personnel among nursing units with rapidly changing nursing workload.

The goal of a personnel-allocation program is to provide the needed number of individuals in appropriate job categories to deliver effective nursing care at a predetermined standard for a designated number of patients in a specified care setting. To calculate the needed numbers and categories of personnel, managers must weigh multiple variables, such as the number of beds in the unit; usual occupancy rate; character of typical patient population; care measures ordered for each patient type (diagnosis and severity); methods of nursing care delivery; efficacy of the agency's support services; architecture of the unit; and social climate of the workplace.

Components of Nursing Workload

The first step in a staffing system is to predict the amount and type of nursing care that will be needed in each nursing unit during the forthcoming year. To forecast nursing workload on a particular unit, the manager must know (1) how many patients will be admitted to the unit per day, month, and year; (2) whether patients will be of different types—both medical and surgical—and the number of each type to be admitted; (3) medical diagnosis and acuity level of patients to be cared for; (4) average length of stay for each type of patient; (5) direct and

indirect care measures to be provided each type of patient; (6) frequency of each care measure to be performed; and (7) average time for performance of each direct and indirect care measure.

Review of census data, occupancy rates, length-of-stay statistics, and admission and discharge diagnoses for the previous three years provides the basis for predicting future patient census and diagnoses (if the agency's catchment area and service programs do not change). Review of patients' charts and interviews with attending physicians and head nurses will indicate the probable care needs of expected patients. Work-measurement techniques should be used to establish time standards for care of patients in different dependency levels (Hagerty et al., 1985).

Purpose of Patient-Classification Systems

A patient-classification system is a scheme for grouping patients according to the amount and complexity of their nursing care requirements. In most classification systems, patients are grouped according to their dependency on caregivers or the amount of caretaker time and ability employed in caring for them. The purpose of a classification system is to assess patients, group them with patients having similar needs, and assign patients in each group a numerical score to quantify their nursing care needs. To develop a workable classification scheme, managers should determine the number of categories into which patients will be classified, the need characteristics of patients in each category, and the time and skill needed to satisfy each set of need characteristics.

Types of Patient-Classification Systems

Two types of patient-classification systems are in common use: prototype classification system and factor classification system (Reinert and Grant, 1981). In a prototype system three or more patient categories are established to reflect increasing degrees of patient dependency on caregivers. For each category, a typical patient

is described to highlight the characteristics that determine the type and amount of care needed. Patients are classified on the basis of their resemblance to the patient typifying one of the system's care categories. In a factor system, significant care descriptors are identified, and each patient's need for care is measured to yield a subscore for each descriptor. Subscores are added to yield an overall dependency score (Hottman and Wakeheld, 1986).

• MEMO CAPSULE •

Types of Classification Systems

- **Prototypic:** Describes typical patient and varying need levels.
- **Factored:** Patient needs are scored on multiple care descriptors.

Because the goal of a patient-classification system is to obtain accurate information about nursing workload for case costing, the system must facilitate the quantification of nursing effort, time, or both (O'Brien-Pallas et al., 1992). For a prototype system, it is necessary to calculate the average time used in caring for a typical patient in each category. This can be determined by timing different nurses as they care for a typical patient in each category, then averaging the observed care times for each category. For a factor system, it is necessary to determine the average time spent in performing each task associated with each care descriptor. This information is obtained by timing actual task performance by several agency personnel and calculating the average performance time for each task.

Commercially available patient-classification systems are designed to be used in more than one agency. However, the quantification coefficients used in computing nursing workload are not universally applicable, because differences in facility layout, patient characteristics, care

equipment, and staff sophistication all influence task performance time.

Factor-Evaluation System

Most health agencies use factor-type patient-classification systems, in which several care elements or descriptors are identified, each element is divided into subelements, and a standard time is determined for accomplishing each subelement. Nurses in each agency should determine the standard times that are specific for that agency, and update time standards to reflect changes in physical structure, care technology, personnel organization and assignment, and staff experience and ability.

Care descriptors

In some classification systems the descriptors used to measure patients' dependency needs are activities of daily living: feeding, grooming, toileting, comfort measures, and mobility. The time required to assist a patient with each activity is quantified from the least amount of time required (as "feeds self") to the greatest amount of time required (as "requires tube feeding q4h").

MEMO CAPSULE

Activities of Daily Living

- Bathing
- Feeding
- Grooming
- Excretion
- Mobility

In one midwestern hospital 32 care descriptors are used to classify patients according to nursing needs (Poulson, 1987). The patient-classification system of one midwestern university hospital uses 10 descriptors: activities of daily living, vital signs, wound care, respiratory care, medications and fluid management, patient management (admission, discharge, transfer),

specimens and special procedures, safety measures, communication, and psychosocial interventions (Marks, 1987). In a West Coast university hospital patients are classified according to 16 care descriptors: hygiene, nutrition, fluids and electrolytes, breathing, circulation, thermoregulation, elimination, activity, injury potential, communications, coping, knowledge, assessment, medications, specimens, and treatments (Whitney and Killien, 1987).

One community hospital's psychiatric unit uses 10 care descriptors in its patient-classification system: diet, elimination, vital signs, hygiene, medications, supervision, therapeutic interventions, milieu groups, and recreation (Ehrman, 1987). For one descriptor (elimination), the tool specifies only one level of patient dependency; but for another descriptor (therapeutic interventions), the tool provides six levels of patient dependency. Schneider and Appleton (1977) developed a reason-for-visit patient-classification system to use in an ambulatory care setting. Reasons included patient seeking care for symptoms; diagnosed patient needing a return visit; nonsymptomatic patient needing preventive or diagnostic followup; need for specific therapeutic interventions; injured patient needing emergent care; return necessitated by abnormal test results; and administrative visit for

MEMO CAPSULE

Common Core Descriptors

- Hygiene
- Nutrition
- Medications and fluid management
- Skin and wound care
- Respiratory care
- Circulatory care
- Elimination
- Mobility
- Special diagnostic and treatment procedures
- Health teaching
- Activities of daily living

insurance physician or return-to-work certification. It is interesting to note the similarity in descriptors used by a variety of inpatient facilities and the difference in descriptors needed for inpatient and outpatient care settings.

Levels of care intensity

After significant care descriptors have been selected, designers of a patient-classification system should define the levels of care intensity for each descriptor. The levels may be differentiated by the amount of nursing time required or expected (desired) frequency of each care measure. In a West Coast hospital, for the descriptor "hygiene," two levels of intensity were established for each of the following subelements: bathing, dressing, partial linen change, and extra assist (Whitney and Kilien, 1987):

Hygiene	Points
Bathing Assisted	2
Bathing Complete	4
Dressing Assisted	2
Dressing Complete	5
Partial linen change 1-2 x day	1
Partial linen change 1-2 x shift	2
Extra assist 1-2 x day	2
Extra assist 1-2 x shift	5

In a community hospital psychiatric unit's patient-classification system, for the descriptor "therapeutic interventions," six levels of care intensity were described (Ehrman, 1987):

Therapeutic interventions	Points
Bedside sitting routines	4
Relaxation techniques	8
Litter sitting only	11
Reality orientation only	14
Individual patient sessions—formal	17
Short frequent contacts	19

Prototype Evaluation Systems

The prototype patient-classification system used by one East Coast visiting nurse association is based on the patient's rehabilitation po-

tential. Characteristics are listed for a typical patient in each of five care categories, as follows.

Category I: Patients with acute, episodic disease or disability who will return to their preillness level of functioning and for whom the care goal is the complete elimination of existing health problems.

Category II: Patients with chronic disease on which is superimposed an acute episode of illness, who have the potential to return to the preepisodic level of functioning, and for whom the care goal is management of the chronic health problem by the patient and family without ongoing support from the agency.

Category III: Patients with chronic disease or disability, where return to preillness level of functioning is not possible but for whom there is a potential to increase the level of functioning and the care goal is rehabilitation to a maximum level of functioning through continuing agency support.

Category IV: Patients with a chronic disease or disability who can't be maintained at home without ongoing agency support, for whom the care goal is maintenance at home at a maximum level of functioning through ongoing agency support.

Category V: Patients with end-stage illness for whom the care goal is assurance of comfort and dignity throughout the terminal stage of illness (Daubert, 1979).

In an eastern hospital, after using several patient-classification systems with limited success, nurses adopted a prototype system, because it required less time to use than a factor system and the department lacked a computer to perform the mathematical computations used in a factor-type system. In the selected prototype system, patients were classified into five categories: self-care, minimal care, moderate care, extensive care, and intensive care. In each category four care descriptors (activities of daily living, general health, teaching and emotional support, and treatment/medications) were used to highlight patient characteristics and level of care required by a patient in that category. Under

the descriptor "activities of daily living," four subelements were included: eating, grooming, excretion, and comfort. Descriptions for the subelement "elimination" varied from one category to the next, as follows:

Category I (self-care): Out of bed to bathroom alone or almost alone. Not incontinent.

Category II (minimal care): Needs help getting to bathroom or using urinal. Not incontinent but experiences occasional stress incontinence or dribbling.

Category III (moderate care): Needs bedpan or urinal placed and removed. Can only partially turn or lift self. Incontinent two times each shift.

Category IV (extensive care): Incontinent more than two times each shift.

Category V (intensive care): Requires 1:1 observation or continuous monitoring all shifts. (Johnson, 1984)

DESIGNING A PATIENT-CLASSIFICATION SYSTEM

To design or select a patient-classification system for the agency or unit, a nurse manager or administrator must balance the competing advantages of accuracy and time savings. The more complex and highly detailed the classification system, the more personnel time used in categorizing patients.

The most effective patient-classification system is one that is specifically tailored to the clinical situation in which it will be used. If time and skill permit, the vice-president of nursing of each health agency should design or adapt the agency's patient-classification system. The nurse executive should allow agency nursing personnel to decide which type of classification scheme to use, develop their own agency-specific time standards (based on time and motion studies), define typical patient conditions and care elements, and validate the classification criteria before implementing the system. Not only should the patient-classification system be individualized for the agency where it is used, but also the system should be adjusted to fit different

types of patient needs in dissimilar nursing units. When the GRASP patient-classification system was used in an eastern community hospital, nurses in the psychiatric unit found it necessary to tailor the system to increase its accuracy for psychiatric patients (Ehrman, 1987).

Validity and Reliability of Classification Tools

For a patient-classification system to predict nursing workload reliably, nurses must categorize patients accurately. Two characteristics of an effective measuring device (a patient-classification system is a measuring device) are validity and reliability. Validity is the degree to which a device measures what it purports to measure. A patient-classification system purports to measure the amount of time and skill used in caring for a patient with stated characteristics. The designer or adaptor of a patient-classification system should be concerned with three types of validity: face validity, content validity, and criterion-based validity. *Face validity*, the weakest of the three, is the degree to which a device *appears* to measure what it purports to measure. If staff nurses who review a patient-classification tool agree that the listed care elements and intensity levels account for real differences in nursing time and skill needed to care for patients of different types, the tool has face validity.

Content validity is the degree to which a measuring device samples elements representing the full range of reality to be accounted for. The content validity of a patient-classification tool refers to the representativeness of the care elements or indicators included in the instrument. Expert nurses in the unit(s) where the tool is to be used should determine whether its elements or indicators reflect the patient population and care activities typically encountered in that setting (DeGroot, 1989; Williams, 1988).

Criterion-based validity is the degree to which measurements obtained by using one tool correspond with other measurements that are accepted as accurate measures of the same phenomenon. Sometimes, an agency discovers or

develops a time-consuming patient-classification tool that accurately predicts the time needed to care for patients of different types. If a nurse manager develops a *less* time-consuming tool, she or he could test the criterion-referenced validity of the new tool by comparing classification data for the same group of patients, using old and new classification tools simultaneously. Researchers at a university hospital investigated the predictive validity of the agency's patient-classification system, that is, the degree to which predicted patient care needs reflected actual care delivered to patients. The results showed that, across all patient care units, the mean category agreement between prospective and retrospective measurements was 0.89, and the mean intensity agreement was 0.80 (Whitney and Killien, 1987). A survey of unplanned patient care events revealed that 2 to 5 percent of care in medical-surgical, psychiatric, and neonatal intensive care units was unpredictable; less than 1 percent of care in rehabilitation and newborn nursery units was unpredictable; and 11 percent of care in adult critical care units was unpredictable. These findings demonstrate why it is impossible to predict nurse staffing needs with perfect accuracy, even with a factor-type patient-classification system.

Reliability is the degree of consistency with which a tool measures whatever it does measure. Because budgeting, staffing, and assignment decisions are based on patient-classification data, nurse managers should seek a patient-classification tool with high interrater reliability;

that is, a classification tool is reliable if a patient is assigned to the same care category by different nurse raters using the tool at the same time. A manager can maximize the interrater reliability of the agency's (unit's) patient-classification tool by training nursing personnel in the proper use of the tool, so that all nurses use the instrument in a similar fashion.

Nursing Time Standards

After a patient-classification tool has been designed, the manager's next step should be to establish standards indicating the average nursing time per day needed by patients in each care category. The more popular methods for obtaining this information are estimating, historical averaging, time logging, work sampling, use of industry's predetermined standards, and time and motion studies (Kirk, 1986). These methods vary in accuracy and implementation time:

1. **Estimating.** Expert nurses use educated guesses to determine the time needed for each nursing activity. This method is fast and inexpensive but often biased.
2. **Historical averaging.** The manager divides the number of hours worked by nursing staff in a clinical specialty during the previous year by the number of patient-days of care during the same year. This method is easy and inexpensive but imprecise, because much staff downtime enters into the calculation.
3. **Time logging.** Each caregiver logs each nursing care task performed and the amount of time used to complete each. This method is inexpensive, but its accuracy depends on conscientious record-keeping of each caregiver.
4. **Work sampling.** Trained researchers make random, momentary observations of nursing personnel, record the activities each is performing, and calculate the relative time spent in each work task. This method is expensive, and its accuracy depends on the observer's ability to correctly

MEMO CAPSULE

Tool Validity

- **Face:** *Appears* to measure what it purports to measure
- **Content:** Samples full range of elements of interest
- **Criterion-based:** Measurements resemble those of other tools.

identify employees' activities. It is inaccurate in categorizing nurses' cognitive activities

5. Predetermined industry standards. Nurse managers use time standards developed and accepted by nurse experts in other health agencies. Inexpensive. Accurate only if the agency's physical characteristics, practice patterns, and work force sophistication matches that of the agency(ies) in which time standards were developed.
6. Time and motion studies. Nurse experts use clipboard and stopwatch method to time and record frequency of each task performed by nursing personnel. Accurate, but expensive (Kirk, 1990).

MEMO CAPSULE

Time Standards

- General
 - Estimating
 - Historical averaging
 - Industry standards
- Situation-specific
 - Time logs
 - Time and motion studies
 - Work sampling

At the same time that nursing hours per patient-day are being calculated, researchers should decide which nursing tasks should be carried out by professional nurses and which can safely be performed by auxiliary personnel. The latter information will be useful in determining an optimum professional-nonprofessional employee mix.

Determining the Professional-Nonprofessional Personnel Mix

If the health agency's policy is to employ a mixture of professional and nonprofessional

nursing personnel, data obtained from direct observation of caregivers' work will reveal the proportion of total unit workload borne by each type of employee. Experts claim that when patients are more seriously ill a greater proportion of their nursing care should be provided by professional workers to ensure that life-threatening complications are correctly diagnosed and treated. Standards for personnel mix vary over time and from one agency to another.

In 1965 Abdellah and Levine recommended a staff mix of 55 percent professional and 45 percent nonprofessional workers. A study by Intermountain Health Care, Inc., revealed that a staffing mix of 58 percent RNs, 26 percent LPNs, and 16 percent aides, with a 1:1.56 staff-to-patient ratio was associated with the fewest problems in medical-surgical, postpartum, and pediatrics units (Bush and Hart, 1983; cited in Minyard et al., 1986). If the agency's policy is to employ part-time as well as full-time personnel, nurse administrators and managers should set guidelines for the preferred mixture of full-time and part-time employees for each unit. To ensure work group continuity and minimize communication problems between coworkers, the ratio of full- to part-time employees should be at least 2:1, and higher ratios (3:1, 4:1, 5:1) are preferred.

Many early patient-classification systems were developed for use with hospitalized medical-surgical patients in general wards (Evans and Lewis, 1986). Recently, patient-classification systems have been developed for use with psychiatric patients (Eklof and Weishuang, 1986; Ringerman and Luz, 1990); rehabilitation patients (Davis, 1983); nursing home patients (Hogan and Smith, 1987); home care patients (Helberg, 1989; Sienkiewicz, 1984); orthopedic patients (Fray, 1984); intensive or critical care patients (Corcoran and Diers, 1989; Echridge, 1985); ambulatory surgical patients (Miller, 1985); ambulatory care patients (Johnson, 1989; Miller and Foise, 1989; Parninello et al., 1988); and patients with eating disorders (Olson and Helstad, 1990).

DIAGNOSTIC-RELATED GROUPS

In addition to the patient-classification systems that were designed to qualify and quantify each patient's nursing needs, a different type of classification system was developed for use in the prospective payment of hospitalization costs for Medicare recipients. Since the beginning of the Medicare program in 1965, hospital costs have risen alarmingly. In 1982 the rate of hospital cost inflation was 13.3 percent, which was three times the 3.9 percent increase in the consumer price index for the same year (Horn et al., 1985).

For many years third-party payors (federal government, state governments, private insurance companies) paid hospitals for the cost of inpatient care according to a traditional cost-based, fee-for-service, retrospective method. Under the retrospective method hospitals received a per diem payment to cover nursing, ancillary, and hospital services and a separate payment for each service not covered in the per diem rate (such as costs for operating room, recovery room, x-ray, physiotherapy, respiratory therapy). The retrospective method of reimbursement encouraged the provision of unnecessary care, because hospital income varied directly with patient length of stay and the number of routine and special services delivered (Grimaldi, 1982). To control costs, Congress passed PL 98-21 in 1983, mandating a *prospective* rather than a retrospective payment system. The new system set a predetermined price for inpatient hospital care of Medicare recipients according to the patient's placement in one of 467 diagnostic-related groups (Dane et al., 1985). The diagnostic-related group, or DRG system, was developed in the late 1960s at the Yale University Center for Health Studies (Ploman and Schaffer, 1983) and used in New Jersey in the 1970s in that state's prospective system for paying hospital costs (Joel, 1984). The DRG system is a strategy for grouping patients according to demographic, diagnostic, and therapeutic characteristics that correlate with their use of hospital facilities (Fetter et al., 1980).

Patients are grouped according to primary diagnosis, secondary diagnosis, age, and surgical procedures.

Under the prospective payment system hospitals are paid a fixed price for all inpatient care received by a patient, according to the diagnostic-related group into which he or she is classified at time of hospital discharge. If the hospital's cost for the patient's care is less than the fixed rate, the hospital realizes a profit. If the hospital's cost for the patient's care exceeds the fixed rate, the hospital must absorb the loss (up to a certain point). It was intended that the prospective payment system would provide strong incentives for earlier hospital discharge, with consequent savings in health care costs. However, it has created some undesirable effects on the quality of patient care and financial welfare of health care organizations.

In a study of three university teaching hospitals and three community hospitals, Horn et al. (1985) discovered that for more than one-third of DRGs, patients in the same DRG showed different illness severity levels in different hospitals. Difference in illness severity from one hospital to another may be due to several factors: More seriously ill patients are often referred to teaching hospitals, medical practice patterns vary from one physician to another in the same specialty, and each hospital emphasizes some medical specialties over others. When the payment is fixed in advance for each DRG, there is incentive for hospitals to identify those DRGs for which they can provide care at less cost than that set by the federal government and those DRGs on which they consistently lose money. This knowledge enables a hospital to "specialize" in care of the former type of patient and discontinue admission of the latter.

A major problem in using DRGs as a patient-classification system is the lack of homogeneity in the use of nursing resources within each DRG (Bost and Lawler, 1989; Bostrom and Mitchell, 1991; Jones, 1987). In the DRG systems of many states, payment for nursing care is still included in the per diem charge, even though

the DRG system was designed to categorize patients according to amount of hospital resources consumed, and patients in some DRGs show marked differences in nursing care requirements. A study of Wisconsin hospitals (McKibbin et al., 1985) revealed that patients in DRGs with low-cost weights generally used fewer nursing resources than patients in DRGs with higher-cost weights. However, DRG 320 (kidney and urinary tract infection in patients over 69 or with complications) and DRG 14 (cerebrovascular disorders except transient ischemic attack [TIA]) had proportionately lower cost weights than expected from the number of required nursing care hours. In four DRGs investigators found such high variations in the required nursing hours that it was impossible to predict the amount of nursing resources needed by patients in these groups: DRG 127 (heart failure and shock), DRG 194 (diabetes), DRG 15 (TIA), and DRG 468 (operating room procedures unrelated to principal diagnosis). On the other hand, DRG 125 (circulatory disorders with cardiac catheterization) and DRG 148 (major bowel procedures) had disproportionately high-cost weights compared to the number of required nursing care hours.

A study of 20 patients in three DRGs (McClain and Selhat, 1984) revealed that, in the studied general hospital, patient length of stay exceeded national norms in all three DRGs studied. The national mean length of stay for DRG 88 (chronic obstructive pulmonary disease) was 7.5, but the mean length of stay in studied patients was 16.3 days. National mean length of stay of DRG 195 (cholecystectomy with common duct exploration in patients over 69 with comorbid conditions) was 16.8, but the mean length of stay for studied patients was 22.25 days. Unfortunately, the small sample size makes it impossible to generalize these study findings to other agencies.

A study of 240 acute care patients in five DRGs (Mowry and Korpman, 1985) revealed marked variability of nursing costs in DRG 194 (diabetes) and DRG 182 (gastrointestinal dis-

orders); less variability in DRG 336 (transurethral resection of prostate); and little variability in DRG 355 (nonradical hysterectomy), and DRG 39 (lens operative procedure). For DRGs that show little variation in nursing resource use, the DRG payment scheme may reimburse hospitals appropriately for nursing costs. However, some DRGs show variations in daily nursing labor costs of as high as 20 percent (DRG 336, transurethral resection of prostate), 40 percent (DRG 182, gastrointestinal disorders), and 50 percent (DRG 294, diabetes 35 and older). In the two DRGs showing the greatest variability (DRGs 182 and 294), deviant weights were on the high side. The skewed distribution predisposes to marked shifts of mean nursing costs. Nursing labor costs represent from 20 to 40 percent of a hospital's total operating budget. Thus, even moderate increase in mean nursing costs could subject the agency to considerable financial loss. To prevent nursing costs from exceeding reimbursement for nursing services, managers must calculate the average nursing costs for the most common DRGs and the amount of cost variability in each DRG. With this information managers can monitor nursing costs to identify cost outliers and identify less expensive nursing interventions for patients in that DRG.

Several health agencies have developed methods to separate nursing costs from total costs of hospitalization. Investigators have identified the average cost of nursing care per patient in selected DRGs (McClain and Selhat, 1984; McKibbin et al., 1985; Reschak et al., 1985). Caterinicchio (1983) developed equations to estimate minutes of nursing care for individual patients based on the patient's primary diagnosis, combined with various patient-specific factors. It is impossible to compare nursing costs across studies, because researchers have used different definitions of direct and indirect nursing costs. Mason and Daugherty (1984) define indirect costs as costs of such nursing support services as intravenous line teams, genitourinary teams, and nursing clerical support. Reschak et

al. (1985) define indirect costs as costs of resources to support the nursing infrastructure in providing nursing care, such as administration, supervision, recruitment, orientation, patient education, and staff education.

Another problem in identifying the nursing cost fraction of total hospital costs is the fact that nursing intensity, or the amount of nursing resources required by a patient, is not constant throughout a patient's hospital stay. For some patients nursing intensity follows a parabolic curve, increasing during the early stage of hospitalization to a maximum and then declining as the patient recovers enough to be discharged (Grimaldi and Micheletti, 1982). For patients who develop complications of illness or untoward effects of treatment, however, nursing acuity level may rise sharply at any point during hospitalization and, if treatment is unsuccessful, may remain elevated until the patient dies or is discharged to a different health facility. Further studies are needed to identify an accurate method for identifying the costs of nursing care per patient and for aggregating nursing costs in a manner that facilitates resource planning (budgeting) and resource utilization (scheduling, assigning). The nurse manager needs research skills and computer support to obtain such detailed cost information.

SEVERITY-OF-ILLNESS MEASURES

It is an interesting paradox that most so-called patient-classification systems are based on an analysis of *nursing* actions, rather than patient conditions. Recently severity-of-illness measures have been developed in an effort to clarify the patient characteristics that determine what nursing interventions are needed. The most common severity-of-illness measures are:

1. Computerized severity-of-illness index. Patient's medical diagnosis, objective signs and symptoms, laboratory values, radiological findings, rate of treatment response, and discharge status are used to compute a severity score for primary and secondary diagnoses (Horn and Horn, 1986).
2. Disease staging. This method categorizes a patient into one of four levels of increasing physiological involvement for the principal and secondary diagnoses:
 - a. Stage I: No complications or complications of minimal severity
 - b. Stage II: Problems of moderate severity that are limited to a single organ or system
 - c. Stage III: Problems at multiple sites, with general systemic involvement and poor prognosis
 - d. Stage IV: Final event of an illness or death (Gonnella et al., 1984).
3. Medical illness severity grouping system (Medisgroups). This system uses key physiological measures, clinical findings, laboratory findings, and radiological findings to classify patients on admission into one of five groups according to number of key findings present (computer assigns a weighted score to each abnormal finding):
 0. None of the key clinical findings present: 0-4 points
 1. Minimal, nonspecific findings, with low potential for organ failure: 5-9 points
 2. Acute findings with unclear potential for organ failure or severe findings with clear, but not imminent potential for organ failure. Severe or acute, but not both: 10-14 points
 3. Severe and acute findings, with high potential for organ failure in a short time: 15-19 points
 4. Critical findings of present organ failure: 20+ points (Brewster et al., 1985).

NURSING INTENSITY MEASURES

Unfortunately, a patient's severity-of-illness score also does not always accurately reflect the amount and level of nursing effort required for optimum care (Soeken and Prescott, 1991). The desire to classify patients as a basis for costing and pricing nursing care has led to development of nursing intensity measures. Nursing intensity is a measure of the amount and complexity of

the nursing care needed by a patient. One such measure is the Patient Intensity for Nursing Index, or PINI (Prescott, 1991). This tool incorporates four dimensions:

1. Illness severity. The patient's severity of illness reflects both his or her medical condition and the instability of physiological parameters.
2. Patient dependency. Patient dependency is the amount of the patient's need for assistance with activities of daily living.
3. Nursing complexity. Nursing complexity

is the amount of knowledge and skill needed to perform required care measures and clinical decision making.

4. Time. Time is the measure of time actually spent in patient-related nursing activities during the current shift.

Preliminary studies have shown that the PINI is a valid measure of nursing volume and complexity of hospitalized patients. The authors of the tool are developing a Patient Intensity for Nursing Tool to be used in ambulatory care (Prescott, 1991).

RESEARCH BRIEF

Testing a Patient-Classification Instrument

Purpose: Test Ambulatory Care Client-Classification Instrument (ACCCI) for use in outpatient clinics

Sample: Five thousand twenty-two patient encounters (including telephone contacts) with RNs, LPNs, and aides in four outpatient clinics.

Method: In a previous study, 12 nurse experts used Delphi technique to identify indicators for ambulatory care. Delphi results were used to refine and collapse a 41-item classification tool to a 34-item tool. A second series of Delphi rounds provided intensity weights (relative amounts of nursing time) for each activity. For each patient encounter, investigators recorded nursing time, intensity score, care provider, and visit type (private MD, resident, nurse practitioner, RN visit, telephone contact). The relationships among variables were analyzed for the entire sample.

Findings: Complete physical examinations were not performed during any patient encounter. The LPNs and nursing aides (NAs) spent more than 50 percent of their time in measurement, specimen collection, and provision of comfort measures and more than 30 percent of their time assisting the primary provider, informing pa-

tient about clinic services, and chaperoning during patient visits. The RNs were exclusively responsible for health care and health-maintenance instruction, administration of medications (including IVs), nursing assessment, referring patients to another provider, application of appliances, and blood therapy. Nursing times and intensity weights were used to define four care categories, reflecting progressively more numerous and severe care indicators. RNs provided the majority of care at all levels of intensity; NAs provided less and less care from the lowest to the highest care categories.

Application: The investigator concluded that a prototypic classification system is better for an ambulatory care setting than a factor-type instrument, because of high patient volume and rapid patient turnaround. As NAs provide progressively less care for patients as nursing intensity increases, they are apt to have considerable downtime in clinics with high care intensity. Patient-classification data, as well as census data, should be considered when staff numbers and skill mix must be altered following change in client population or clinic services.

Source: Carrinello, K., Brenner, P., and Venable, E. **Research and Testing of a Patient-Intensity Classification Instrument in Ambulatory Care.** *Nursing Administration Quarterly* 13 (1): 54-65, 1988.

SUMMARY

Nurse managers no longer believe that "A nurse is a nurse is a nurse," nor that "A patient is a patient is a patient." Studies show that patients differ markedly in their needs for nursing care as a consequence of differences in medical and nursing diagnoses, disease acuity or severity, complexity of ordered care, age, and social circumstances. Nursing personnel differ markedly in knowledge and ability, owing to differences in intelligence and motivation, educational preparation, previous nursing experience, and job tenure. To provide safe, effective nursing care while conserving agency resources, the nurse manager should daily measure patients' care needs and use that information to determine the number and types of personnel that must be assigned in various configurations to provide the needed care. The manager should compare needed personnel with available (scheduled) personnel and remedy any over- or understaffing through creative use of float, over-time, part-time, and registry personnel. In making staffing adjustments, the manager should ensure maximum continuity of patient-caregiver contact, maximum job satisfaction for employees, and maximum continuity of the primary work group. To determine the correct number and type of nursing personnel needed to care for patients in a nursing unit, a variety of patient-classification systems have been used. At various times and in various settings, patients have been classified according to medical diagnosis, required nursing tasks, patient dependency, patient acuity of illness, required nursing intensity, and different combinations of these factors. However, patients' illness-health care experiences are fraught with uncertainty and unexpected events. Hence, it is impossible to predict a patient's nursing care needs with absolute accuracy.

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Absenteeism

Who's minding the store?

ANONYMOUS

OBJECTIVES

After reading this chapter, you should be able to:

1. Calculate your own annual absenteeism rate.
2. Interview three coworkers to determine their usual reason(s) for absenteeism.
3. Suggest one managerial intervention to minimize each cause cited for absenteeism by your three coworkers.

To ensure that the required number of workers in desired categories report for work each day, a nurse manager must regulate employee hiring, separation, and attendance. When designing nursing jobs and managing employee activities, an effective manager maintains a work environment that is attractive enough to retain productive employees and disciplined enough to remove unproductive workers (Taunton et al., 1989). Agency productivity and profitability will suffer unless every manager reduces employee absenteeism and turnover to manageable levels.

Absenteeism is defined as any time away from scheduled work. During the past 20 years ab-

senteeism has become a serious economic problem in all American industries. In 1975 (Yolles et al., 1975) annual absenteeism rates for all U.S. organizations was 5.1 days per employee. Absenteeism rates in industrial organizations range from 2 to 3.5 percent but are higher for nursing personnel (Kleinman and Rosberger, 1982). In 1983, the annual absenteeism rate for health care workers was seven days per year (Bureau of National Affairs, 1983). Many Western nations have observed a marked increase in sickness and absenteeism rates since World War II. Increase in absenteeism parallels increases in birth rate, crime rate, and consumer spending. Some attribute excessive employee absenteeism

to generous fringe benefits; others to decline in the work ethic or growing societal stress (Miller and Norton, 1986).

COMPUTING ABSENTEEISM

Common methods for quantifying absenteeism are time-lost percentage and absence-frequency rate.

Time-lost percentage

$$\frac{\text{Number of days lost}}{\text{Number of potential work days}} \times 100 \\ = \text{Percentage of time lost}$$

Absence frequency rate

$$\frac{\text{Total episodes of absence per year}}{\text{Average number of employees for year}} \times 100 \\ = \text{Yearly absence frequency rate}$$

Approximately 20 percent of employees are responsible for 80 percent of absenteeism (Kemper, 1971). In one university medical center, only 10 percent of employees were "sick-time" abusers (Ward and Hirsch, 1985). On average, there is an absenteeism rate of 3.4 percent of the hours usually worked for all industries and 4 percent of hours usually worked for medical organizations (Taylor, 1981). Sometimes, a nurse manager can reduce employee absenteeism by posting monthly and annual absenteeism rates for total unit staff in the staff lounge for 2-3 days, followed by a meeting in which the staff discuss ways to improve employee attendance.

EFFECTS OF ABSENTEEISM

A high rate of absenteeism is costly in terms of agency expenditures and employee morale. An absent worker must be replaced by an overtime worker paid at a time-and-one-half rate, so two and one-half salaries are spent to fill a single position. Often, the replacement worker is unfamiliar with the tasks to be performed, so inefficiency and errors result, other workers are demoralized, and absenteeism rates increase

among the peripheral workers who are demoralized.

As part of overall pressures to contain health care costs, there is public resistance to increasing the number of nursing staff positions, even in situations where increased patient census, patient acuity, and complexity of care create an increased nursing workload. A nurse manager who decreases absenteeism rates among nursing personnel can increase staffing levels without additional financial outlay. By reducing the absenteeism rate of 200 staff members from 4 percent to 2 percent, the manager can gain four FTE employees to satisfy patient care needs.

TYPES OF ABSENTEEISM

Absenteeism is of two types: unavoidable and voluntary. It is impossible to accurately determine the proportion of absences in each category, because some employees deliberately falsify the reasons for absence and others are unaware of their unconscious motivations for absence. Experts believe that much employee absenteeism is the result of organizational variables rather than employee characteristics and that many of these absences could be eliminated through organizational change (Dilts et al., 1985; McDonald and Shaver, 1981). Probably, both "unavoidable" and voluntary absences could be reduced by improving the quality of the work environment and by increasing employees' psychological rewards for good attendance.

PATTERNS OF ABSENTEEISM

Absenteeism can be classified by amount, frequency, and pattern of time loss. Some workers have frequent short-term absences, some have infrequent long-term absences. For some workers, absence from work seems sporadic, unpredictable, and causally unrelated to any single factor. Other workers demonstrate predictably higher rates of absenteeism in conjunction with weekends, holidays, vacation periods, or pay-

days. A different supervisory approach is needed to eliminate each type of absence.

Analysis of attendance records for hospital and industrial workers reveals recognizable patterns of absenteeism. Absenteeism is higher in late summer and midwinter (Dilts et al., 1985). Demographic variables that relate to absenteeism are sex, age, and distance traveled from home to work. Within the total work force, absenteeism is higher among younger and older workers than among middle-aged workers (Dilts et al., 1985). Females are more frequently absent than males (Yolles et al., 1975). Experts claim that women are absent more frequently than men, because they occupy less-skilled jobs, and absenteeism is highest among unskilled workers. Women are also more often responsible for child rearing and domestic management, to which some women give priority over job responsibilities (Miller and Norton, 1986).

Although all types of nurse absenteeism are costly, a particularly troublesome form of absenteeism is that referred to as "stringing." The stringing phenomenon is the habit of juxtaposing sick days with weekends or holidays in order to acquire a prolonged period of time off duty. A study of nurses' absenteeism in a Canadian hospital revealed that the overall absenteeism rate was 4.29 percent and that the average length of absence was 2.87 days. In this agency, the frequency of the "stringing" phenomenon was lowest in fall and winter and highest in spring and late summer. Furthermore, the amount of absenteeism varied in different nursing specialties; medical units had higher absenteeism rates, surgical units had lower absenteeism rates, and surgical and critical care units had higher "stringing" rates (Kleinman and Rosberger, 1982). Nurses' attendance records should be regularly reviewed to identify employees who habitually string sick time together with scheduled time off, and these employees should be guided toward more appropriate use of employee benefits (Rix, 1987). When counseling nurses with a penchant for "stringing,"

the manager should determine whether aspects of the work environment necessitate the employee's periodic withdrawal and, whenever possible, alleviate sources of work stress.

FACTORS CONTRIBUTING TO ABSENTEEISM

Dilts et al. (1985) group explanations of absenteeism into five categories: economic, psychological, sociological, jurisprudential, and disability. According to economic theory, people dislike work and will work only if they have to. If the income generated by working full-time is more than the individual needs to maintain an adequate standard of living, the individual will not work every day.

According to psychological theory, absenteeism is a worker's behavioral response to job dissatisfaction or need deficiency. That is, an employee will absent himself or herself from the job when he or she cannot exercise needed control over the work environment, feels unneeded on the job, or does not receive appropriate recognition or reward for work achievements.

According to sociological theory, multiple societal, organizational, and work group factors facilitate or impede an employee's ability and desire to attend work. In some work groups job attendance is a highly valued norm. In some families multiple role expectations compete for an employee's work time. In some organizations, pay scales are so low that employees must obtain a second job to meet family financial responsibilities.

According to jurisprudential theory, organizational personnel policies exert major influence on employees' job attendance. The provisions of paid sick time at the rate of one day a month, when it is uncontroversial to other benefits, encourages some employees to absent themselves from work one day each month. Failure to discipline employees for inappropriate absenteeism increases absenteeism rates among absence-prone employees.

According to disability theory, employee absenteeism is due, principally, to illness or injury

that physically incapacitates the worker. Thus, employees will absent themselves for such minor health problems as alcohol and drug abuse, dysmenorrhea, migraine, colds, allergies, dyspepsia, diarrhea, influenza, arthritis, low back pain, sprains, strains, lacerations, as well as for fractures and serious, life-threatening illness.

Industrial studies show no relation between a worker's illness and absence and the amount of overtime worked, but a correlation has been found between unexcused absence and "double-jobbing" (Taylor, 1968). Workers with high illness or absence rates usually demonstrate excessive tardiness as well.

Studies indicate that transportation problems are a significant cause for employee absenteeism (Steers and Rhodes, 1978; Smith, 1977). One researcher discovered that the number of stages in the work-bound or home-bound journey (walk, bus, train, transfer) had a significant influence on absenteeism. Employees with four or more travel stages accumulated 20 percent more absent time than workers with fewer stages (Taylor, 1974). Absenteeism occurs according to a weekly pattern, with the highest rates of absence on Monday, lowest rates of absence on Friday, and Tuesday, Wednesday, and Thursday characterized by moderate absence rates (Berger and Monahan, 1974).

Absenteeism rates are lower in small work groups than in large ones (Argyle et al., 1958). One study revealed that the absenteeism rate of professional health workers exceeded that of nonprofessional workers by a ratio of 3:2 (Kirkup, 1977). In another study, absenteeism rates were higher among early-shift workers than late-shift workers (Redfern, 1978). A study of nursing home nursing personnel revealed that absenteeism rates were lower in winter, lower for RNs than for LPNs or aides, and lower for staff with greatest job seniority. Marital status was unrelated to absenteeism rate, but employees with two or more dependents had more absences than those with fewer dependents (Cohen-Mansfield and Rosenthal, 1989). These

researchers concluded that job attendance or absence is influenced by feelings of responsibility and conflicting responsibilities. They recommend participative management and child care services as devices for decreasing absenteeism among nursing personnel.

Common causes for illness or absence are respiratory diseases, digestive disorders, gynecological disorders, and back problems. Employees with high absenteeism rates also have high accident rates. A study performed in the Veterans Association Health System revealed that nursing personnel had more accident-linked absences than other worker categories. The most common work-related injuries were back and leg injuries associated with lifting and pulling and puncture wounds (Hefferin and Hill, 1976).

Emotional Causes for Absenteeism

Experts claim that personality factors such as immaturity, withdrawal, hypochondriasis, and escapism are responsible for absenteeism by some employees (Felt, 1982; McDonald and Shaver, 1981). Psychological testing has revealed personality differences between frequently and infrequently absent workers. In one study, "never sick" individuals were characterized by introversion and stability, "long sick" individuals by introversion and neuroticism, and "frequently sick" individuals by extroversion and neuroticism (Taylor, 1968).

In another study, measurements of health workers' self-concept revealed that employees with excessive absenteeism had lower self-esteem, less self-confidence, and less awareness of personal motivations than workers with minimal absenteeism (Harriss, 1977).

In addition to psychoneurosis there are psychological factors associated with the work itself that contribute to employee absenteeism. Researchers have demonstrated a relationship between job dissatisfaction and absenteeism (Dittrich and Carrell, 1979; Garrison and Muchinski, 1977). Supervisors and head nurses

have less absenteeism than staff nurses, because managers feel that their presence is vital to agency or unit functioning (Steers and Rhodes, 1978). Also, workers who are overburdened with monotonous tasks and lack autonomy within the work group often avoid stress by withdrawing from the workplace (Dilts et al., 1985).

In addition to these psychological causes of employee absenteeism, Dilts et al. (1985) claim that weakening of the Protestant work ethic and ill-conceived personnel policies are responsible for some employee absenteeism. According to these experts, employees often misinterpret managerial actions that are intended to minimize the untoward effects of absenteeism. A head nurse's maintenance of lists of qualified overtime and "call-in" personnel leads some employees to the erroneous conclusion that absenteeism is expected and acceptable, because it has been planned for. In addition, some employer-provided health, accident, and disability insurance plans encourage absence-prone employees to obtain additional time off with little or no financial loss. To counteract the unfavorable effects of ill-conceived and misunderstood personnel policies, first-level nurse managers should remind employees repeatedly that they will be disciplined for unnecessary absences, because employee absenteeism erodes care quality and agency financial health.

MEMO CAPSULE

Causes of Absenteeism

- Heavy family responsibility
- Double jobbing
- Chronic illness
- Long commuting distance
- Low self-esteem, low self confidence
- Conflict with supervisor, coworkers
- Monotonous job tasks
- Insufficient job autonomy

METHODS OF REDUCING ABSENTEEISM

Several methods have been used to combat absenteeism, with varying degrees of success. The first step in reducing absenteeism is to keep accurate records of employee attendance and calculate absenteeism rates at regular intervals to identify each employee's pattern of attendance. This record should begin during the early period of employment. Any worker with excessive absences should be counseled by her or his supervisor to discover causes for absenteeism and eliminate those causes. According to Oberman and Rainer (1983), an absenteeism rate of 4 percent is excessive and should signal the need for counseling. In one agency annual sick time decreased from 48.3 to 42 hours per employee when managers sent letters of concern to sick-time abusers and letters of commendation to workers who used little sick time (Ward and Hirsch, 1985). The manager should establish a formal "call-in" procedure that requires an employee to speak directly to her or his immediate supervisor when reporting that she or he will be absent from work. The supervisor should be required to document the call in writing, and the employee should be required to report to her or his supervisor on returning to work and sign the telephone call record (Oberman and Rainer, 1983).

In one agency a visiting nurse was assigned to contact each employee who missed work because of illness. The nurse was responsible for assessing the worker's health needs, making a nursing diagnosis, providing nursing care, giving health teaching, and securing medical attention, if needed. As a result of home visits to sick employees, employee attendance rates improved (Castillo, 1977).

Another method for reducing employees' illness absence is for the employer to provide free health-promotion programs or health care to employees (Bertera, 1990). One company discovered that employees were losing excessive work time during illness, because they were unable to pay for a doctor's visit or had to wait

several days for a doctor's appointment. The company contracted with a local clinic to provide primary health services to company employees, who were bused from the workplace to the clinic for scheduled appointments. The employer-provided health care system produced a significant reduction of employee absenteeism (Plunkett, 1975). A hospital or clinic would be able to provide free health care to employees without having to transport them to another location for attention.

A safety and accident-prevention program can decrease absenteeism by decreasing the number and severity of work-related injuries. In one Veterans Administration hospital, duty-related injuries of nursing personnel were reduced after the department of nursing established its own safety and fire protection committee. The committee analyzed employee accident reports, distributed safety literature to employees, developed safety checklists for periodic inspection of unit equipment, and suggested methods to eliminate work hazards (Hefferin and Hill, 1976).

Because health and illness are on a continuum and a worker's decision that she or he is too sick to work is not determined solely by physical condition, the manager should improve those aspects of work environment and work design that are known to decrease employees' work motivation.

To minimize boredom and increase employees' self-esteem, highly skilled workers should be employed, and management responsibilities for goal setting and decision making should be delegated to lower-level managers. The nurse manager can improve worker morale by using a democratic style of supervision and maintaining open communication with subordinates. There is evidence that introduction of flexible staffing schedules (combination of 8-hour, 12-hour, and 4-hour schedules) will decrease the absenteeism rates of nursing personnel (Imig et al., 1984; Lant and Gregory, 1984), because employees can more easily arrange time off for personal commitments and make more satisfac-

tory arrangements for care of dependent children.

An incentive plan that rewards good attendance is likely to decrease short-term or "attitudinal" absences. In one hospital, employees earn paid sick time at the rate of one day per month and accumulate sick time up to 75 days. After an employee has accrued 24 days of allowable sick time, she or he may use three accrued sick days each year as "paid personal time." This personal time is deducted from accrued sick leave but not considered an absence, unless the time taken was not scheduled in advance (Snyder, 1978).

In another agency, a "presenteeism program" rewarded employees who had perfect attendance with opportunity to participate in a monthly lottery, the winner of which was given a modest \$10 prize (Levenstein, 1976). In a southern hospital, employees with perfect attendance for a four-week period were made eligible for the attendance "sweepstakes," and this incentive decreased employee absenteeism from 3.99 to 2.56 percent (Curran and Curran, 1987). Some agencies use a negative financial sanction by decreasing paid benefits for one- or two-day absences.

Administrators in one medical center were able to reduce health care employees' unscheduled absences by implementing a "combined leave benefit" system. In this system employees' traditional vacation, holiday, and paid sick leave were combined into two accounts: a paid leave account and an extended illness account. Employees were allowed to take paid leave days at their own discretion, subject only to the supervisor's approval. Employees were allowed to take extended illness days only with medical validation of illness and only after all time in the paid leave account had been exhausted. Both the paid leave and extended illness accounts were incremented at every two-week pay period, and the current balance in each account was printed on the employee's paycheck stub.

Following the implementation of the com-

bined leave benefit program, there was a 90-percent reduction in employers' unscheduled absences and a 54-percent reduction in the use of overtime hours. A further advantage of the combined leave benefit program was a saving of managerial time, because there was less need for last-minute schedule changes to cover for employees who called in sick and less need for close supervision of replacement workers who were unfamiliar with the tasks they had taken over for an absent coworker (Schneller et al., 1982).

When a study revealed that a primary cause of absenteeism among nurses in a southern hospital system was lack of suitable child care facilities, investigators claimed that the hospital could reduce employee absenteeism and improve workers' productivity by providing on-site day care centers and on-site sick day facilities for children of hospital employees (Miller and Norton, 1986).

When all else fails, nonpunitive discipline may be effective in decreasing absenteeism among "problem" employees (Rogers et al., 1990). A health agency must have a stable work force to continue operations. Consequently, arbitrators usually decree that an employer has no obligation to continue excusing an employee's absence, even when the absences have a valid cause (Kerper, 1971). Effective discipline requires that tardiness and absenteeism be documented and managers use high-level interviewing skills when counseling employees about poor attendance. Punishment may decrease absenteeism during times of high unemployment but is likely to be ineffective or even increase absenteeism among highly skilled workers during periods of high employment. One study revealed that the absenteeism rate of employees disciplined for poor attendance remained the same after punishment but that the employees took longer and fewer absences (Nicholson, 1976).

When managers in an urban teaching hospital claimed that the agency's absenteeism policy was unduly harsh, a more lenient policy was

implemented. Under the new policy, supervisors were allowed to use discretion in applying the absenteeism policy to individual employees. That is, each supervisor was allowed to determine when sick leave or excused, uncompensated leave was excessive and whether to initiate discipline. The disciplinary procedure for handling unexcused absence remained unchanged. Analysis of personnel records for the year preceding and year following the more lenient absenteeism policy revealed a significant *increase* in employees' use of compensated sick leave: more than 14 hours per employee per year. Although hours of excused, uncompensated and unexcused, uncompensated absence decreased slightly with the more lenient policy, these decreases were not significant (Lee and Erickson, 1990). The researchers concluded that the agency's earlier strong, negative absenteeism policy may have deterred some nurses from using paid sick leave. However, they cautioned that the negative absenteeism policy had been a source of dissatisfaction to both staff nurses and managers. Therefore, they urged continued search for a positive, nonpunitive method of reducing absenteeism, even including an attendance incentive plan, which is likely to be expensive.

When an agency requires an employee to submit a doctor's certificate documenting the med-

MEMO CAPSULE

Decreasing Absenteeism

- Require worker phone supervisor, explain reason for absence.
- Public health nurse visits ill employee at home.
- Safety and accident prevention program.
- Flexible staffing policies.
- Combined leave-benefit program.
- Reward good attendance.
- Discipline for excessive, inappropriate absence.

ical basis for one-, two-, and three-day absences, there is a shift from uncertified to certified absences and a shift from shorter to longer absences (Redfern, 1978). It is doubtful whether a worker's family physician can accurately determine when the individual is fit for work, because the family physician is not in a position to evaluate the physical and emotional demands of the worker's job. The family physician is also employed by the patient and, so, is likely to protect the patient by ascribing physical causes to problems of psychosocial origin and may unnecessarily extend the time that the employee is to abstain from work.

SUMMARY

For a nurse manager to accomplish work through others, those others must be present in the workplace at assigned times. Employee absenteeism constitutes a significant loss of health agency resources. A manager who decreases subordinates' absenteeism can increase nurse staffing levels in the unit without spending additional personnel funds. Interventions that increase employee loyalty to the primary work group, enhance employee's job satisfaction, and communicate appreciation of employee contributions have been shown to decrease absenteeism among nursing personnel.

RESEARCH BRIEF

Employee Absenteeism

Purpose: Identify demographic variables, employee factors, and family factors that contribute to absenteeism of nursing unit personnel.

Sample: Eight hundred sixty-five RNs, LPNs, aides, and unit secretaries employed in a three-hospital system.

Method: Survey questionnaire soliciting demographic data, job and family stresses causing employee's absenteeism, and methods of coping with various stressors.

Findings: Respondents were 52 percent RNs, 19 percent LPNs, 14 percent aides; 90 percent female; 64 percent white, and 32 percent black. Fifty-five percent were married, and 25 percent divorced, separated, or widowed. Of the sample's 878 children, 55 percent were under 12 years of age. Only 6 percent of subjects had a preschool child enrolled in a day-care center, and 18 percent said they would use a hospital-based day-care center, if open both evenings and days. Alarmingly, 32 percent of respondents had no before- or after-school care for a school-age child. Eighty-seven percent of those with preschool, and 21 percent of those with school-age children had no source of care for a sick

child, so had to miss work when the child was ill. Twenty four percent had missed work because they "just couldn't stand another day," and 71 percent said administration was unsympathetic about problems caused by shift work.

Applications: Because the majority of nurses are females of childbearing age, conflict between parent and employee roles is a common cause of absenteeism. To cope with these competing demands, these workers sometimes left a sick child home alone in order to go to work (34 percent of respondents) and solved problems for children at home by telephoning them from the workplace (55 percent). Many checked on a child's safety by phoning home at his expected arrival time from school (60 percent). Hospitals could decrease employee absence and increase job concentration by providing low-cost, on-site, well and sick childcare services for employees. In a smaller community, where personnel live near the workplace, a hospital should implement an after-school-care facility, as well, to decrease employee concerns about child safety.

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Turnover

*Today, training for disaffiliation or disrelating begins
early*

ALICE T. JEFFERS

OBJECTIVES

After reading this chapter, you should be able to:

1. Compute turnover rates for RNs, LPNs, and aides in your nursing unit.
2. List three costs involved in replacing a nurse who resigns from a position in your agency.
3. Enumerate three avoidable causes for nurse turnover in your agency.
4. Describe two changes in organizational structure and nurse managers' leadership style that would foster nurse retention in your agency.

The most obvious method for a manager to improve unit staffing is to decrease turnover of nursing personnel. Annual nursing turnover is the percentage of employed nurses who are separated from their jobs during a year's time. Annual turnover rates of nursing personnel are usually higher than for women employees in other industries (Institute of Medicine, 1983; Price and Mueller, 1981). It is difficult for nurse executives to compare turnover rates from one agency to another, because health agencies do not use a uniform method for computing and reporting nurse turnover. In some, turnover

data may include some or all of the following employees who resign voluntarily; are discharged; retire; are laid off, are on disability; or die. In most agencies, temporary employees and workers supported by grant funds are not included in turnover statistics.

It is difficult to analyze turnover rates and trends, because most health agencies compute turnover statistics for the organization as a whole, and no effort is made to compute turnover rates for specific departments and units or specific categories of personnel. Where such categorical data are lacking, it is impossible to di-

agnose and eradicate specific causes of job abandonment. To use turnover data to improve nurse staffing, it is necessary to differentiate between voluntary and involuntary turnover. Voluntary turnover is a worker-initiated move from her or his employment position and is usually associated with such personal events as change in marital status, parenthood, and movement to another job or another city. Involuntary turnover is a move from a present employment position for reasons beyond the worker's control, such as dismissal, retirement, death, or a spouse's job change (Ferguson and Ferguson, 1986). It has been estimated that 36 percent of nursing turnover is of the voluntary type (Seybolt et al., 1978).

COMPUTATION OF TURNOVER RATE

To compute the turnover rate for a particular group of workers, the following formula can be used:

$$\frac{\text{Number of terminations per year}}{\text{Average number of employees for the unit}} \times 100 = \text{Annual turnover rate.}$$

The turnover rate should reflect the volume of personnel actions occurring per unit of time. Therefore, the turnover rate should be computed from the actual number of employees terminated rather than from the number of full-time equivalent positions affected. In other words, separations of part-time as well as full-time employees should be counted as terminations.

The most serious fiscal loss associated with personnel management is that resulting from employee turnover. The annual turnover rate for nursing personnel varies from one agency to another, ranging from about 35 percent to 60 percent in most years (Seybolt et al., 1978). According to Benson (1976) annual turnover rates for the health industry as a whole average 23 percent, and nursing turnover accounts for more than 50 percent of total turnover. Prescott and Bowen (1987) reported an annual nurse turn-

over rate of 30 percent in hospitals in a variety of geographical areas. Duldr (1981) estimates that the annual turnover rate in nursing is 70 percent.

COSTS OF PERSONNEL TURNOVER

A high turnover of nursing service staff is costly in terms of financial expenditure, lowered morale, impaired team functioning, and loss of management potential.

Financial costs of excessive nursing turnover are significant, because personnel costs represent about 60 percent of a hospital's budget and nursing service employees account for about 60 percent of a hospital's total personnel budget (Lehman and Friesen, 1977). The total cost of replacing an employee who separates from an agency can be broken down into direct and indirect costs. Direct costs are financial disbursements that must be made to recruit, select, process, induct, and orient a replacement for the departing worker. Indirect costs include salaries for overtime workers (usually time and one-half) who are employed to fill the gap during the replacement worker's orientation and non-productive first weeks on the job; supply waste, equipment damage, and other inefficiencies associated with the newcomer's lack of familiarity with the job and the agency; and cost of the increased supervision needed by the newly hired worker. Average direct costs of replacing a departed staff nurse have been reported as \$2,437 (Beyers et al., 1983). In a study by Wise (1990), the average cost of recruiting and hiring a nurse was \$1,880. However, the average accession cost for a new nurse—which included the costs of orientation and development—ranged from \$5,400 to \$11,740, depending on the nursing specialty involved. Jones (1990) classified costs associated with registered nurse turnover as direct costs (advertising or recruiting costs, costs of overtime and temporary help to fill the vacant position, cost of lost revenues from closed beds, hiring costs) and indirect costs (termination costs, orientation costs, and costs of decreased new nurse productivity). Jones's study of turn-

over costs in four acute care hospitals in the Southeast revealed a mean total cost per registered nurse turnover (direct and indirect costs) of \$10,198.

Excessive turnover lowers employee morale, because the gap created between the departure of one worker and the arrival of a replacement causes understaffing, overburdening of remaining workers, and deterioration of patient care. A long-term employee who witnesses the departure of one coworker after another and is asked to orient an unending series of replacement workers slowly loses enthusiasm for the task and invests less and less energy in socializing new employees.

When nursing turnover reaches 60 to 70 percent per year, interpersonal relationships among unit nursing personnel become so tenuous that effective teamwork is impossible. Constantly shifting group membership prevents group syntality, role differentiation among coworkers, and development of a supportive group ethos.

Excessive turnover of young nurses also deprives an agency of trainees for first- and second-level management positions. To ensure cultural continuity and superior-subordinate linkages within an agency, a substantial number of middle and upper managers should be drawn from the agency's entry-level workers. If large numbers of entry-level workers depart the agency each year, there may be few superior performers from whom to recruit first-level managers.

OPTIMUM TURNOVER RATE

While striving to keep turnover at an acceptable level, a nurse manager should not assume that 0 percent turnover is a desired goal. Some nursing employees are unproductive, and the agency would be better off without them. A steady supply of newcomers is needed to ensure intellectual ferment and stimulate novel problem-solving approaches. One expert recommends that an agency aim for a 5 to 10 percent annual turnover rate (Gauerke, 1977).

CAUSES OF AVOIDABLE TURNOVER

The basic cause of avoidable turnover is the lack of congruity between the agency's needs for manpower and the employee's needs for self-esteem, skill development, socialization, self-actualization, and career plans. The agency's and administrators' primary goal is fiscal solvency, whereas a nurse's primary goal is high-quality patient care or, in some instances, career development. Highly satisfied personnel see the job as supporting their future career plans (Anderson et al., 1991). However, the agency's and the employee's goals are often in conflict.

The degree to which a particular job contributes to an incumbent's self-esteem depends on the prestige that society accords to members of the occupation. The majority of nurses are female, and some female nurses complain that sex discrimination is responsible for the fact that nurses are shown less respect than members of other health occupations. Among a hospital's three most important occupational groups, nursing is often "one down" in dealings with medicine and hospital administration. Even in agencies where the vice-president of nursing occupies a top executive position, she or he is frequently excluded from policy-making meetings of the top executive group and denied voting rights on major business items. Some vice-presidents of nursing who assertively represent nursing and nurses were forced from their positions by chauvinistic medical and hospital administrators who demand docility in females whom they appoint to top leadership positions.

The opportunities for self-actualization that can be found in a particular job are related to the process of role development. According to role theory, a specific "part" or characterization is associated with each job or position in the organizational hierarchy. Successful assimilation into the primary work group requires that an employee fulfill the prescribed job role to her or his own and others' satisfaction. The clarity of an assigned role depends on formal and interactional definitions given by managers and coworkers. The written job description, job

posting, written performance standards, and evaluation instrument constitute formal definition of the job role to be played by an incumbent. The formal role definition is subtly refined by the number, nature, and flavor of an employee's interactions with peers, subordinates, and superiors. During each interchange, verbal and nonverbal signals are sent by coworkers to indicate the role behaviors expected of the employee.

Inadequate role definition prevents optimum job performance and diminishes an employee's achievement, recognition, self-esteem, and self-actualization. Inadequate role definition is often the result of role conflict (contradictory expectations of performance such that some expected behaviors are antithetical to others), role ambiguity (vagueness in formal and interactional definitions of expected behavior), and role dissensus (disagreement between worker and others about role-appropriate behavior). Role conflict and ambiguity can be minimized by frequent updating of job descriptions, performance standards, and job postings to ensure that specifications of job role behaviors fit current agency needs. Role dissensus can be minimized by free discussion of job duties and standards by the manager and employee during the preemployment interview and ongoing evaluation of employee performance, especially during the first two years of employment. Furthermore, even a well-defined role, if totally task oriented, may prevent self-actualization (Caudill and Patrick, 1989).

Marked disparity exists between a health agency's and a nurse employee's needs, because all three basic nursing education programs (associate degree, diploma, and baccalaureate) prepare students for a whole-task system of patient care, but many health agencies use part-task systems of patient care (Schmalenberg and Kramer, 1976). Students who are educated by the case method of assignment and taught to provide comprehensive and continuing care to assigned patients are frustrated when employees later force them to abandon the principle of total

patient care for the assembly-line approach that characterizes functional and team methods of assignment.

Some experts claim that a nurse's work schedule is responsible for much of the discrepancy between what a nurse expects from professional practice and what she or he experiences during employment. A study of hospital nursing personnel (Choi et al., 1989) revealed that a discrepancy between expected and experienced work schedules was a significant predictor of the intent to leave nursing. These researchers claim that work schedules that do not allow nurses some degree of control over their personal lives, and restrict opportunities for social activities and supportive relationships outside of work cause job dissatisfaction and increase employee turnover.

More highly educated nurses tend to be more critical of the nursing profession than less educated nurses. The most creative or innovative young nurses quickly defect from jobs in bureaucratic health agencies, because they are excluded from participation in decision making, goal setting, and policymaking. The bureaucratic structure of many hospitals, clinics, and long-term care agencies predisposes to creation of narrowly defined nursing jobs that call for limited personal responsibility and offer little opportunity for skill development. People who enter nursing for altruistic and humanitarian reasons are frustrated by the need to spend a large amount of work time in uninteresting and apparently unnecessary paper work.

In a survey of registered nurses (What nurses want, 1980), respondents indicated the following as significant sources of job dissatisfaction: low patient care standards; excessive work demands; inadequate salary; no voice in patient care decisions; excessive paper work; no chance for advancement; limited educational opportunities; insufficient challenge; and lack of recognition. There was a marked contrast between what the nurses wanted from their job and what they experienced in their current position. Although 92 percent rated a sense of achievement

as "very important," only 33 percent were "very satisfied" with their achievement. Although 77 percent rated intellectual stimulation as "very important," only 28 percent were "very satisfied" with the amount of intellectual stimulation they received. Although 42 percent rated opportunity for advancement as "very important," only 17 percent were "very satisfied" with advancement opportunities. Although 60 percent rated income as "very important," only 18 percent were "very satisfied" with their income. The survey revealed that recently graduated nurses had higher job expectations than more seasoned nurses. Also, despite the high frequency of reported turnover, most staff nurse mobility was lateral rather than upward through the nursing hierarchy.

Ancillary nursing personnel can be a source of frustration to newly graduated registered nurses. Many aides, orderlies, and practical nurses are older workers with long experience in patient care and long tenure in the employing agency. As a result of thorough knowledge of agency rules and routines and familiarity with informal organization structure, long-term ancillary workers often wield more informal power in the work group than recently graduated registered nurses. An experienced practical nurse with more highly refined technical skills than a neophyte professional can easily threaten a new nurse's self-confidence (Cronin-Stubbs, 1977). Repeated humiliation by unsympathetic support staff drives some young nurses from their jobs before they are fully oriented to their new role. On the other hand, a stable, skilful practical nurse may resent having to orient young registered nurses, especially when, after brief employment in a staff nurse position, they advance to a head nurse position, from which they then direct the activities of their former tutor.

In addition to job satisfaction, nurses' psychological characteristics are related to job termination and nurse turnover. A study of critical care nurses (Kosmoski and Calkin, 1986) revealed that nurses with an internal locus of con-

MEMO CAPSULE

Causes of Turnover

- Incongruity between agency's and employee's goals
- Low status, low autonomy of nursing personnel
- Job role ambiguity, dissensus, confusion
- Discrepancy between expected and experienced work schedule
- Negative sanctions for nurses' assertive behavior
- Misunderstanding between older nonprofessional and younger professional workers

trol were more satisfied with their jobs than nurses with an external locus of control, and higher job satisfaction was associated with an intention to remain in the current job.

IDENTIFYING CAUSES OF TURNOVER

To decrease employee turnover, each nurse manager should identify specific causes of personnel turnover in the nursing unit and eradicate or alleviate individual and organizational stresses that provoke productive personnel to resign. Selected preemployment interventions can maximize effectiveness of postemployment efforts to prevent premature resignation.

Correlational Studies

Correlational studies should be carried out to identify personal or demographic characteristics of employees that correlate with rapid turnover. Length of employment can be compared with such factors as nature of previous employment (acute care, chronic care); tenure in previous position; nursing specialty preference; level of educational preparation; extracurricular interests; distance between home and workplace, and so on. If it is determined that a particular factor is associated with a longer or shorter stay in the agency, the manager may select for or against that factor in subsequent

hiring. However, the manager should be aware that in selecting and hiring employees it is illegal to discriminate against applicants on the basis of age, sex, race, and union membership.

Exit Interviews

Another method of identifying factors that increase turnover in a selected nursing unit is to ask departing employees their reasons for leaving the agency. In some agencies this is accomplished by conducting an exit interview with each resignee, during her or his last week of work (Whitis and Whitis, 1983). Occasionally, a departing employee can be salvaged during the exit interview; either persuaded to remain in the present position by promise of improved schedules and assignments or transferred to another agency unit in the hope that a different setting will better suit her or his interests and abilities. If the resignee cannot be salvaged, an exit interview provides opportunity to identify sources of discouragement that drive employees from the agency. For exit interviews to yield valid information about working conditions, they must be conducted by a member of the personnel department or by the manager who oversees the departing employee's immediate supervisor. The person who conducts an exit interview must be sufficiently skilled in directive and nondirective interviewing techniques to put the employee at ease and encourage free expression of feelings. Even under optimum conditions some resignees will not reveal their primary reason for resignation, fearing that if they were to criticize the agency, a supervisor, or coworkers, they would be less likely to obtain a favorable work reference from their immediate superior or the personnel director.

Data from nurses' exit interviews at three San Francisco hospitals revealed that relocation, family considerations, opportunities for advancement elsewhere, return to school, and staffing problems were the most common causes for job termination. Researchers concluded that nurse turnover in studied hospitals could be reduced by providing child care services, offering

flexible scheduling, providing release time for educational development, implementing career ladders to facilitate career advancement, and attaching benefits to employee seniority (Benson, 1986).

Posttermination Polls

Some agencies poll resignees about their reasons for leaving by mailing a questionnaire to each former employee's home one or two months after termination. Often, more accurate information is obtained by posttermination questionnaire than by exit interview, because the employee is more objective when viewing the job after some time, and because the respondent remains anonymous in answering a questionnaire and has no fear of retaliation. The amount and quality of turnover data obtained by posttermination polling depends on the questionnaire scope and precision. A clumsily constructed instrument, designed by a person with insufficient knowledge of job structure, industrial psychology, and agency operations, will skew responses, which renders the obtained information useless for understanding turnover.

Attitude Surveys

At regular intervals, the attitudes of current employees should be surveyed to identify sources of job satisfaction or dissatisfaction. An attitude survey of registered and practical nurses in a university hospital revealed that turnover could be predicted by "leavers'" and "stayers'" different responses to selected survey items. In general, "leavers" reported lower overall job satisfaction, lower satisfaction with supervision, lower satisfaction with opportunities to use personal abilities, and increased feelings of tension and pressure. "Stayers" were generally older, had more seniority in the agency, and were better job performers than "leavers." Researchers concluded that nurses' principal motivation for resignation from the studied hospital was frustration of employees' needs for growth and development (Seybolt et al., 1978).

Employee Health and Welfare Committee

Some agencies have an Employee Health and Welfare Committee that includes a representative from each job category and provides a direct channel for transmitting employee concerns to top management. When an Employee Health and Welfare Committee acts as sounding board for employee concerns there is less danger that unresolved complaints will fester to destroy morale and increase turnover. When employees' opinions about job stress are solicited by questionnaire or interview, managers should provide prompt followup to eliminate or ameliorate each identified stressor. If they make no effort to resolve the reported problems, employees quickly lose faith in management's concern for their welfare and doubt their own ability to improve the work environment.

MEMO CAPSULE

Diagnosing Turnover

- Correlation studies: Relation of age, education, unit character to turnover rate
- Exit interview: Personnel specialist questions worker on last day about job attitudes
- Posttermination poll: Mail questionnaire to resigner one to two weeks after departure
- Attitude survey: Anonymous questionnaire to employees about job-satisfaction level
- Health and Welfare Committee: Representatives of all units channel concerns to the chief nurse executive

METHODS FOR REDUCING TURNOVER

To reduce excessive turnover, a manager must be ready to improve each step of the staffing process. Job descriptions should be updated to ensure current listing of job duties, tasks, and responsibilities; recruitment materials should be rewritten to ensure accuracy of agency purpose, mission and character; selection methods

should be adjusted to more accurately predict applicants' job success; placement procedures should be refined to improve the match between job demands and employee aptitudes. Unit managers should also be willing to design orientation programs that prepare employees with essential job skills; plan personnel schedules that distribute desirable and undesirable duty days and shifts equitably among personnel; use supervisory techniques that enhance employees' personal autonomy and acceptance by coworkers; and implement evaluation measures that maximize learning and career development.

Some nurses leave a job because they find it more taxing, less interesting, more restrictive, or less challenging than anticipated. Some leave because of an aversion for some aspect of physical care, such as postmortem care, restraining disorderly patients, or handling vomitus, sputum, blood, or feces. A manager can minimize turnover from these causes by describing both positive and negative aspects of a job in job postings and job analyses and providing each applicant with an accurate, detailed description of the job being offered. The job description given an applicant should list all tasks included in the job and indicate the proportion of total job time spent in each. The job description should describe unfavorable aspects of the work situation, such as irregular hours, overcrowded rooms, noisy surroundings, dangerous equipment, irritable patients, frequent interruptions, exposure to hazardous substances, and the like. Applicants should be given a tour of the unit in which they will work, so that they can see personnel performing typical tasks in typical patient care situations and will have opportunity to question current employees about working conditions.

If correlational studies have identified personal, educational, or experiential qualifications that correlate with satisfaction in a particular position, job requirements should be rewritten to include those qualifications, so as to ensure the selection of the best-qualified candidate for each job. Job requirements should be adhered

to despite pressure from vested interest groups (e.g., professional nursing organizations, nursing specialty groups, or physicians) to ignore or temporarily abandon them.

Every effort should be made to assign a newly hired nurse to the clinical nursing specialty of her or his choice. Staff shortage, change in patient census, opening or closing a nursing unit may tempt a manager to assign a newly hired medical nurse to a surgical unit or a recovery room candidate to the coronary care unit on a temporary basis or until a job is available in the preferred unit. Even temporary displacement of a new nurse interferes with optimum work role identification and assimilation into the primary work group. A nurse who finds herself or himself in a role other than that envisioned during the recruitment process will feel confused, cheated, and deflected from career goals.

Turnover can be reduced by individualizing the orientation process so as to maximize each new employee's skills for job success. A study of employee morale in an acute care hospital revealed that learning new skills and improving technical performance were essential to job satisfaction among practical nurses and diploma nurses. Probably turnover among these workers could be reduced if managers determined which nursing skills were required for the successful performance in each job and then initiated orientation programs in which each nurse could acquire key skills and abilities that had not been acquired during former employment.

Experts claim that turnover would be reduced by greater congruence between the way nurses are assigned for patient care during school years and the way they are assigned during later employment. A student who is taught a whole-task approach to nursing through the case method of assignment should be able to transfer easily to the whole-task emphasis of primary nursing or nursing case management, but would probably have difficulty compartmentalizing or fractionating care for functional or team methods of assignment.

It may be necessary to reduce the size of pa-

tient care assignments to decrease excessive turnover in some health care agencies. In a study of new graduate staff nurses, the most significant cause for dissatisfaction was assignment of too much responsibility too soon, with the result that the neophyte felt overwhelmed by the supervisor's expectations for her or his clinical performance (Cronin-Stubbs, 1977). A survey of registered nurses in medical surgical units of several acute care hospitals revealed a significant correlation between perceived work overload and intent to resign (Jolma, 1990). This researcher concluded that registered nurse turnover could be decreased if nonprofessional duties now performed by registered nurses were assigned to personnel with less education and training. This expert and others advise that the primary nursing concept be refined to allow for a "nurse extender" or "practice partner" role. A nurse extender is a practical nurse, a nurse aide, a respiratory therapist, an electrocardiographic technician, or technician of another type, who is paired with an RN who serves as primary nurse for a caseload of patients. The nurse extender would take over some of the more tedious but less demanding aspects of patient care, thereby freeing time for the professional nurse to plan, coordinate, and evaluate nursing interventions and to implement more highly skilled, psychologically or cognitively demanding aspects of patient care.

Tension discharge rate is the rate at which an employee is able to dissipate job-induced tension that accumulates during the workday (Matteson and Ivancevich, 1983). Dailey (1990), studied relationships among hospital registered nurses' perceived stress symptoms, tension discharge rate, role ambiguity, and intent to resign. For nurses in this study, high levels of job ambiguity and high levels of job stress were associated with less ability to dissipate job-induced tension. Furthermore, experienced job stress and capacity to dissipate job-induced stress were stronger predictors of nurses' intention to resign than were their role perceptions. Dailey claims that hospitals can decrease nurse turnover by

providing nursing-focused stress-management programs that increase nurses' abilities to dissipate job-induced tension.

Many nurses are dissatisfied with the poor quality of supervision that they experience in health care agencies. Some find older supervisors poorly informed about current technology and science, inflexible, and devoted to preservation of the status quo.

One study of employee motivation revealed that job satisfaction is related to different factors for groups with different educational backgrounds. For ancillary nursing personnel, job satisfaction resulted from the feeling of being a member of the "hospital team." For technical nursing personnel, job satisfaction resulted from being viewed as "skilled professionals" and having the opportunity to acquire new skills. For professional nursing personnel, job satisfaction resulted from a supportive interpersonal environment and the opportunity to shape agency policies (Carey et al., 1976). In the same study, ancillary nursing personnel indicated that supervisors who were not "excessively critical" and welcomed their opinions about work-related matters were those who made them feel "part of the team."

Nursing home nursing assistants were surveyed in the Northwest to determine whether the assistants' turnover rates were related to satisfaction of survival, security, belonging, esteem, and self-actualizing needs (Maslow, 1970). Findings revealed the following relationships among need satisfaction and job turnover for studied nursing assistants. Employees who received the highest pay and spent least for food and shelter (survival needs); who felt they were a valued member of their work group, felt "needed" by their patients, and had a head nurse who "listened" to their concerns (security and belonging needs) had longest job tenure. Those who ranked themselves highest in nursing skills (self-esteem) had the longest job tenure. Interestingly, praise by the patient and patient's family was more important to the nursing assistants than praise given by the charge nurse

or director of nursing (Caudill and Patrick, 1989). This finding suggests that a nursing home manager should inform family members, at the time of a patient's admission, that their direct expressions of appreciation to the patient's caregivers helps the agency to retain committed nursing personnel, thereby ensuring the continuity of patient care.

Apparently, the nurse manager must use different supervisory techniques to decrease employee turnover in different job classifications. Ancillary workers may need more frequent and obvious tokens of appreciation and recognition from management, such as service pins, recognition dinners, or a feature story in the official house organ. Technical employees may need frequent opportunities to attend skill-training programs outside the agency and to participate in work-study programs that facilitate career advancement. Professional personnel may need sensitivity training, group dynamics instruction, and an opportunity to participate in organizational development projects. By tailoring supervision to the needs of each worker category, a manager may increase job satisfaction enough to maintain turnover at acceptable levels.

A survey of nurses in four acute care hospitals in a Southeastern metropolitan area revealed that nurse managers' leadership style was significantly correlated with staff nurses' job satisfaction (Lukas, 1991). Staff nurses in this study reported a preference for the consultive style of management, which is characterized by considerable confidence in subordinates' abilities, both downward and upward communication, motivation through rewards, involvement, and occasional punishment, moderate delegation of responsibility to subordinates, and consultation with subordinates about management decisions (Likert and Likert, 1976). However, these same staff nurses reported that their immediate supervisors were using a benevolent-authoritarian management style, which is characterized by mostly downward communication, motivation through a mixture of rewards and punishment, control of decision making by the

manager, and a condescending attitude toward subordinates. It would appear that staff nurse turnover could be decreased if the manager of each nursing unit would poll unit nursing staff to identify the management style preferred by the majority and then adopt the management approach most acceptable to subordinates.

There is evidence that changing from team nursing to primary nursing will decrease turnover of professional nursing staff. In a western university hospital the annual registered nurse turnover rate was 64 percent for the agency as a whole but 27 percent for a medical unit on which primary nursing had been implemented (Fairbanks, 1981).

Finally, turnover can be reduced by improving performance evaluation. The negatively oriented evaluation methods used in most health agencies demoralize employees. Usually, agency policies require that each employee be evaluated by her or his immediate supervisor at the end of orientation and annually thereafter. However, few head nurses or patient care managers have been trained in personnel evaluation. Many performance evaluation tools also overemphasize personality characteristics and ignore some highly relevant cognitive and psychomotor skills. Without training in evaluation techniques, a nurse manager is likely to commit multiple errors in subordinates' performance appraisal. A manager may be overly harsh or overly lenient; may overemphasize the significance of a single behavior episode, particularly one of recent occurrence; may allow her or his perception of an employee's clinical performance to be colored by the employee's physical appearance or social skills; or may be tempted to assess all aspects of the employee's performance as average in order to avoid argument during the annual evaluation conference.

If the performance-evaluation tool does not reflect the full realm of job-related behavior, both manager and employee may be turned off by the entire evaluation process, viewing it as an empty ritual, a charade.

Experts claim that few positive results come from a manager's annual evaluation of each subordinate. In fact, the traditional evaluation conference, in which the manager first compliments the employee about one or two instances of exemplary behavior, then exhorts the employee to improve five or six different aspects of performance, frustrates both participants. Employees can be coached to be self-directing and self-reliant by being encouraged to evaluate their own performance, with guidance from a supervisor who is thoroughly familiar with the employee's job and provides her or him with realistic performance standards.

A study of nursing personnel in a West Coast hospital revealed that nurses' turnover intentions varied with their tenure in the agency. The researcher concluded that different interventions were needed to prevent turnover in newer and older employees. Employees with less than six months of service in an agency are overwhelmed by conflicting job demands and will be tempted to leave unless they receive feedback from coworkers that they are performing the job well. Employees with 6 to 12 months of service think they have mastered the job and will be tempted to leave if they receive no payoff for good work, so they should be promptly and consistently rewarded for satisfactory performance. Employees with one to three years of service who are unclear about their supervisor's expectations are likely to terminate, so they need clarification about the manager's performance expectations. Employees with three to six years of service have learned the job well but begin to doubt the significance of their contributions to the agency's mission. To keep them from terminating, the manager should explain how their efforts are crucial to the achievement of agency goals. Employees with more than six years of service have helped to shape agency policies and programs and are unlikely to leave unless they become dissatisfied in interactions with superiors. To prevent these workers from terminating, managers should improve the quality of superior-subordinate relations through

team-building exercises and management by objectives (Seyholt, 1986).

A survey of nurses named in a southwestern state's board of nursing files showed that 42.9 percent of respondents were not currently employed in nursing. Subjects' most common reasons for leaving nursing were retirement, "personal choice," and family responsibilities. Subjects currently employed in nursing indicated that the following factors would keep them in active practice: higher salaries, flexible hours, improved staffing, and increased employment benefits. Because the professional exit rate was disproportionately high among more educated nurses, researchers concluded that the altruistic motivations that drew more talented individuals into nursing were not strong enough to ensure their continuing professional participation in the face of job dissatisfaction. Apparently, improvement in both personal and economic rewards are needed to decrease nurse turnover (Ruffing et al., 1984).

Turnover could be reduced if nurses received less verbal abuse from physicians, patients, and coworkers. A study by Cox (1987) revealed that 82 percent of staff nurses had experienced repeated episodes of verbal abuse, and 18 percent of staff nurse turnover was related to verbal abuse. Assertiveness training for staff nurses, network support from colleagues, and joint nurse-physician practice committees have been proposed as methods of decreasing the verbal harassment of nurses.

Turnover could be reduced if nurses were given the opportunity to transfer to a different unit for a "no-risk" trial period when they tire of working in a particular specialty unit. When a plan of this type was implemented in a New York hospital, some nurses who undertook a two-month trial rotation to the intensive care unit decided to remain in the critical care unit, and nurses who decided to return to their original unit were willing to "float" to the intensive care unit when that unit was understaffed (Wicks and Mandak, 1987).

Participative management and decentralization of clinical decision making are likely to decrease turnover of professional nurses. In a study of Midwest hospitals Price and Mueller (1981) learned that nurses of all ages desired greater participation of work-related decisions, improved communication about work-related issues, and increased opportunities for advancement.

Greater variety and flexibility of work schedules would probably decrease staff nurse turnover. In a study of hospitals located in several geographical areas Prescott and Bowen (1987) found the two most frequent reasons for staff nurse resignations were dissatisfaction with scheduling and lack of head nurse responsiveness to concerns of staff nurses.

MEMO CAPSULE

Decreasing Turnover

- Accurate job descriptions: Include positive and negative aspects of position.
- Preemployment tour of unit: Allow applicant to visit unit, talk with staff.
- Individualize orientation: Provide information, practice to increase self-confidence.
- Congruence of school and work: Offer clinical practice to reflect employment situation.
- Stress reduction program: Offer agency-sponsored physical fitness and recreation activities.
- Teambuilding efforts: Bind newhire to work group through group-development activities.
- Relational leadership: Managers provide consideration and task direction.
- Supportive performance evaluation: Provide self-, peer-, and manager evaluation.
- Prevent verbal abuse: Offer assertiveness training for nurses, joint practice committees.
- Participative management: Decentralize clinical decision making to staff nurse level.

RESEARCH BRIEF

Nurses' Attitudes toward HIV-Positive Patients

Purposes: Describe nurses' concerns, opinions, and precautions related to the care of HIV-infected patients.

Sample: Three hundred twenty-three staff nurses employed in the home health unit and seven critical care units of a midwestern hospital.

Method: All staff nurses attended a one-hour staff-education program on HIV transmission, universal precautions, agency policies for infection control, and procedures for monitoring nurses with on-the-job exposure to HIV. Three months later, a questionnaire was mailed to 115 home care and 485 critical care nurses, asking about (1) their fear of acquiring work-related HIV infection; (2) the adequacy of the agency's HIV-related policies; (3) their use of infection-control precautions.

Findings: Sixty-nine percent of respondents had cared for HIV-infected patients, 4% had not, 27% didn't know whether they had or not. During work, 20 percent had broken skin or mucus

membrane exposure to HIV-positive blood and body fluids. Critical care and ambulatory care nurses did not differ in their fear of job-related HIV exposure, the adequacy of agency policies, or the use of infection-control precautions. Nurses with HIV exposure were more likely than nonexposed nurses to agree with such statements as: "I worry about being exposed to HIV at work" and "All patients should be tested for HIV on admission." Two-thirds thought they should be allowed to refuse assignment to HIV-positive patients. Thirty percent had considered changing professions to avoid AIDS risk.

Applications: If nurses leave specialty or profession to avoid AIDS risk, the nurse shortage will worsen. Nurses' HIV exposure and fears would lessen if nurses from all specialties collaborate in developing an agency's HIV-related policies and nurses are monitored for use of universal precautions. Hospitals should implement support groups where HIV-exposed nurses can discuss concerns and learn about the low seroconversion rate of HIV-exposed health workers.

Source: Weiss & Heller. Acknowledgment: A. and B. and C. B. Care of HIV-infected patients: Nurses' concerns, opinions, and precautions. *Applied Nursing Research* 3:1:27-33, 1990

SUMMARY

Nurses are in great demand, and nursing jobs are highly stressful; yet nurses' complaints are too often ignored by their managers or administrators. Many nurses react to overwhelming job pressures and job dissatisfaction by moving from one job to another or one agency to another. As nursing becomes increasingly specialized, recruitment, selection, and orientation of new nurses become increasingly expensive. A nurse manager can reduce personnel replacement costs by describing nursing positions more accurately to applicants; developing supportive peer networks for nurses; and responding promptly to nurses' complaints of conflict with

coworkers, incompatible family and job schedules, unfair work assignments, and lack of adequate job orientation.

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Staff Development

Orders will not take the place of training

MARY PARKER FOLLETT

OBJECTIVES

After reading this chapter, you should be able to:

1. Explain how induction learning and in-service education stimulate staff members to develop new knowledge and skills.
 2. Enumerate three adult learning principles to be followed in providing in-service instruction to nurses
 3. Identify educational programs offered by local colleges, community agencies, and professional organizations that could be used as staff-development activities for nurses in your agency.
 4. Review the course outline for a nursing in-service program, and evaluate whether objectives, content, teachers, methods, materials, and time allotment are appropriate for the program's purpose.
-

Staff development activities consist of the training and education provided by an employer to improve employees' occupational knowledge, skills, and attitudes. Managers at all levels of an organization's hierarchy are responsible for upgrading subordinates. Staff-development activities are needed, because societal change and scientific advancement cause rapid obsolescence of nursing knowledge and skills. Changing population characteristics, spe-

cialization of health professionals, and government financing of health care have increased the demand for nursing services and improved nursing's response capabilities. Practicing nurses require career-long learning to keep abreast of changing demands and capabilities.

Education should be designed to transmit known information in a field only when the time span of major cultural change is longer than individual life span (Gross, 1982). The profes-

sionalization of nursing has made it impossible to adequately educate nurses in a short-term program at career outset. All three types of basic nursing education (diploma, associate degree, baccalaureate degree) provide beginning nurses with basic understanding and skills on which they can build a complex body of job-specific skills through self-study. A manager's objective for staff development should be to help subordinates close the gap between present abilities and the scientific basis for nursing practice, which is broadening through research.

Health agencies that use a large number of ancillary personnel prepare these workers for patient care responsibility through in-service education, that is, on-the-job training. Collective bargaining by registered nurses, practical nurses, and nurse aides has produced substantial pay raises for all classification of nursing personnel. As labor costs increase, the misuse of nursing manpower becomes increasingly costly. Most health agencies provide some form of staff development to raise employee productivity and create a pool of managerial talent.

The speed of scientific and technical advance outstrips nurses' ability to assimilate new knowledge through self-study. Not only do scientific discoveries change nursing methods but also changed methods alter nurses' relationships with patients, physicians, and administrators. These interpersonal changes facilitate new methods of nursing care delivery such as primary nursing, modular nursing, nursing case management, independent practice, and group practice. Staff development programs are needed to help nurses cope with new practice roles—for themselves and other nurses.

Most graduating nurses enter practice with high levels of interest and commitment. Bureaucratic rigidity, sexism, work overload, inadequate power, and lack of respect tend to erode their enthusiasm, causing some nurses to abandon nursing for more agreeable occupations and others to change jobs frequently. Occasionally, staff-development activities can remedy professional malaise by revealing unsus-

pected opportunities for self-actualization in the nurse's present position.

A manager's purpose in providing staff development is twofold: to promote the employee's career advancement and to increase employee productivity. In an agency without career ladders, health workers are locked into dead-end jobs. Promotional opportunities are scarce for ancillary and technical workers in health care. However, a well-designed staff-development program can raise the occupational aspirations of low-status workers and motivate some to advance from ancillary to technical, or technical to professional positions.

In addition, nurse managers provide staff-development activities for subordinates, because accreditation and licensing bodies require it. The JCAHO requires that personnel be oriented to care objectives, job duties, personnel policies, and agency regulations and be given in-service education to ensure satisfactory job performance (Joint Commission of Accreditation of Healthcare Organizations, 1992). In some states, the hospital licensing act decrees that nursing personnel receive continuing in-service education to ensure safe and effective patient care.

TYPES OF STAFF DEVELOPMENT

Staff development includes formal and informal, group and individual training and education. The goals of staff development are to assist each employee to improve performance in her or his present position and to acquire personal and professional abilities that maximize the possibility of career advancement. Staff-development activities include induction training; orientation procedures; in-service education; continuing education; and training for special functions, such as management training, team-building techniques, and budgeting methods (Fig. 18-1). Each of the foregoing is a distinct educational activity, with different purpose and method.

Induction training is a brief, standardized indoctrination to agency philosophy, pur-

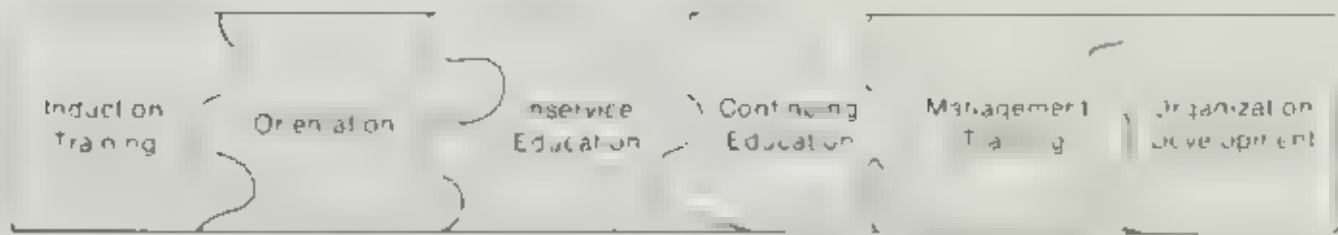


Figure 18-4 Interlocking nature of staff development activities

pose, administrators, programs, policies, and regulations that is given to every worker during the first two or three days of employment to foster quick identification with the agency (Huston and Marquis, 1989). Orientation is individualized training given each employee during the first two or three days on the job to familiarize the employee with job duties, workplace, clients, and coworkers. The purpose of orientation is to facilitate the employee's assimilation into the work force and acceptance of job responsibilities. In-service education includes all on-the-job instruction that is given to enhance the employee's present job performance.

Continuing education includes all planned learning that is intended to increase employee knowledge or skill beyond that needed for satisfactory performance in the present position. The purpose of continuing education is to enable an employee to move from satisfactory to excellent performance in the present job or to achieve promotion to a position with greater responsibility. A continuing education program provides exposure to new concepts, procedural refinements, innovative product applications, or acquisition of increased expertise. Because in-service education is given to improve present job performance, total expenses are borne by the employer. Because continuing education is given to advance the employee beyond satisfactory performance of present job duties, some or all of the expense may be borne by the employee. For example, some agencies permit nurses to attend a continuing education program on paid duty time, with the expectation that the knowl-

edge or skill obtained from the program will increase the employee's present value to the agency. Usually, the nurse is expected to pay the program's registration fees, on the assumption that these programs increase the potential for career mobility. Rapid advances in health technology lead to rapid obsolescence of clinical nursing expertise. To prevent patient injury by inept caregivers, some health agencies implement an internal system for credentialing and privileging nurses for each nursing specialty. In one system of internal credentialing a candidate cannot be assigned to work in her or his selected clinical area until intraagency experts examine and approve the nurse's clinical skills. Once assigned to the chosen specialty, the nurse must maintain clinical competence through regular enrollment in continuing education and must demonstrate expertise through annual reexamination by an agency expert (Benedum et al., 1990).

MEMO CAPSULE

Employer-Sponsored Education

- Induction training: 2–3 days; agency focused
- Job orientation: 2–24 weeks; job focused
- In-service education: 2–8 hours; topic or skill focused
- Continuing education: 1–5 days; concentrated or scattered; employee focused; tuition reimbursement; Academic course or program; employee focused

STAFF-DEVELOPMENT CONCEPTS

Staff development activities are defined by the following concepts: competence, interests, needs, and learning.

Competence is the state of possessing qualities and abilities that are required for a particular role or task. Many staff-development programs are aimed at increasing worker competence for using new care procedures or equipment. Interests are inclinations that cause an individual to be attracted or repelled by certain objects, events, or persons, with the result that the individual seeks experiences that favor development. No education program can convey all the information needed to understand a subject fully. Therefore, the goal of a staff-development program should be to stimulate sufficient interest in a topic that the learner will continue to study the subject independently. A need is a lack, tension, desire, or demand that impels a person to specific behavior. An educational need is a measurable discrepancy between a person's actual job competence and a desired competence level. Learning consists of desirable behavioral change that results from a prescribed experience. Informal learning is the change in a cluster of cognitive and emotional behaviors that results from the unconscious imitation of a role model. Technical learning is the deliberate change in cognitive and psychomotor behavior that occurs in response to a teacher's intentional stimulation.

During the past 30 years educational theorists have warned that approaches and methods used to teach children are not effective in teaching adult learners, such as staff nurses. According to Houle (1961), there are three types of adult learners: (1) goal-oriented learners, who seek education to obtain well-defined objectives; (2) activity-oriented learners, who seek education, because they enjoy the characteristics of the learning situation; and (3) learning-oriented persons, who seek education, because of a love of learning. When planning induction, orientation, and in-service programs for nursing personnel, staff-development teachers should

include activities that are likely to appeal to adult learners of all three types. In a study by Tough (1971), the typical adult took part in eight major learning projects each year. Interestingly, only 10 percent of these projects were associated with an educational institution. Most of the adults in this study sought help from another adult at some point during the learning project. Unfortunately, some "helpers" who were formally prepared as teachers interfered with the subject's learning by being too directive.

Malcolm Knowles (1982) defined the term "andragogy" as the "art and science of helping adults to learn." He claimed that the normal process of maturation gives adult learners a deep psychological need to be generally self-directing, although they may need to be temporarily dependent in specific learning situations. A carefully planned internship under a nurse preceptor should allow a newly graduated nurse to satisfy simultaneously her or his needs for independence in professional role enactment and occasional dependence on the superior wisdom and skill of a clinical mentor. Knowles points out that the adult learner's rich reservoir of life experiences provides a basis for anchoring new information and skills. Previous success with experimental learning causes adult learners to prefer active to passive educational experiences. Therefore, clinical laboratory assignment, case studies, simulation exercises, and field experiences are effective for orienting a newly hired nurse to her or his new work setting, job responsibilities, work resources, and coworkers.

A body of educational concepts and principles underlies successful staff development.

1. The ultimate responsibility for continuing education or professional development rests with the employee. Therefore, employees' suggestions should be solicited when planning, implementing, and evaluating staff-development programs.
2. Most learning is a combination of ex-

perience and conceptualization. Therefore, employees learn best when cast into situations that encourage self-discovery of significant information, concepts, and skills (Huntsman, 1987).

3. Learning is an internal, personal, emotional process. Therefore, methods and techniques that involve the individual on a deeply personal level produce the most significant and lasting learning.
4. Learning involves a change in behavior, and it is difficult to change habitual behavior. Hence, people learn best when they are slightly off-balance or slightly uncomfortable. Old ideas, predilections, and habits must be shaken or unfrozen before new thoughts, pastimes, actions, and attitudes can be wholeheartedly undertaken.
5. Although a child learner readily accepts dependence on an adult teacher, the adult learner demands autonomy in seeking, regulating, and using learning experiences. Therefore, an authoritarian manner is ineffective in teaching adults. An adult learner should be encouraged to contribute questions, examples, and information during instructional sessions.
6. Although a child is willing to postpone the application of new learnings, adults learn best when lesson content can be applied immediately. Therefore, a case method, problem-solving teaching format is well suited for nursing staff development.
7. Behavior that is positively rewarded is likely to be repeated. Learners need quick, hearty applause or other positive feedback when they display a new behavior that they have been asked to perform.
8. Individuals tend to organize all aspects of a total learning situation into an integrated whole. Therefore, each aspect of a learning situation should complement or supplement every other, so all educational components interlock to support desired objectives.
9. The transfer of learning is maximized when training occurs in situations closely resembling those where the learned behavior should be applied. Therefore, illustrative examples, descriptive case studies, and practice exercises should resemble work problems frequently encountered by the employee.
10. The transfer of learning is maximized when managers reinforce changes in employee's behavior resulting from staff-development activities. When it becomes necessary to change professional practice behaviors, several employees should be educated simultaneously to display the desired knowledge, skills, or attitudes. Group instruction will stimulate employees to support each other in perpetuating the desired behavior change and will motivate them to model the desired behavior for other employees.
11. Learning is an active, not a passive phenomenon. Therefore, it is more effective to give a trainee a task goal, guidelines for goal achievement, and opportunity to work out details of optimum task performance than to direct the employee to mimic an expert practitioner's skilled performance of the task.
12. Adults are self-directed and possess a huge reservoir of experience from which to draw when learning new knowledge and skill. Unfortunately, memory associations cause proactive inhibition of learning for some content. To design individualized staff-development experiences, a teacher must obtain information about the adult learner's present life circumstances, past education and employment, and future career aspirations.
13. Adult learners are heterogeneous, with extremely different life experiences, motivation levels, cognitive styles, learning

speeds, and sensual preferences. Each staff-development program should include a variety of source materials, teaching and learning methods, and audiovisual aids to satisfy the needs of diverse learners.

MEMO CAPSULE

Adult Education Principles

- Learning is encouraged by opportunity for immediate application of new knowledge
- Dissatisfaction with present abilities motivates the acquisition of new skills.
- Motivation increases if students help to determine lesson objectives and content.
- Learning occurs with a teacher who inspires trust and self-confidence.
- Learners' behavior can be shaped in desired direction with positive and negative cues.

STAGES OF ADULT OCCUPATIONAL DEVELOPMENT

Staff-development activities should be available to employees in every job category. On-the-job education contributes to employee health and to national welfare, because a person's work life is an important avenue for adult development. Staff-development activities influence a worker's progress through all stages of adult development. During their early to mid-twenties, people establish an occupational bent, often in response to guidance received at the first place of employment. In their late twenties to early thirties, they respond to work and personal pressures by questioning commitment to the selected occupation. On receiving coaching from a supervisor or coworker (one type of staff-development activity), they may recommit to the chosen occupation or seek a different line of work. During their mid-thirties most persons invest fully in their selected occupations and family relationships. In their late thirties, they

often attach to a mentor to obtain the coaching and support needed to advance professionally. In their forties, after achieving a secure reputation and strong support network, they separate from the mentor and assume the role of independent, expert practitioner. During their late forties and fifties, their job generates new interests, leading to further refinement of occupational knowledge and skills (Hammer, 1977). During this last stage, the worker often mentors a younger colleague, thereby initiating a new staff-development cycle. Finally, during retirement, an expert practitioner may work as trainer-consultant for professional groups that provide continuing education for neophyte practitioners.

Studies show that adults with 12 years or less of formal schooling are most apt to return to school because of economic motivation. Adults with more than 12 years of schooling usually return to school to satisfy a desire for self-actualization (Hammer, 1977).

Ideally, a nurse's learning during staff-development programs should be characterized by "flow." Deliberate learning can be extrinsically or intrinsically motivated. Much of what nurses learn in traditional in-service classes is extrinsically motivated, that is, it is imposed by the employer's need to ensure effective patient care, despite rapid technological change. However, intentional learning that is intrinsically motivated and pursued for its own sake contributes more to personal happiness than externally motivated learning, however necessary the latter may be to job success. Csikszentmihalyi (1982) refers to the pleasurable experience of total immersion in intrinsically motivated learning for its own sake as "flow." In many ways, "flow" resembles the "peak experiences" of self-actualized individuals (Maslow, 1962). "Flow" experiences are characterized by deep concentration on a limited set of relevant stimuli, with accompanying loss of self-consciousness, loss of time awareness, and feelings of excitement and discovery. Researchers have found that "flow" is generated in situations where

there is an attractive challenge to action that is matched by appropriate responding skills. Theorists claim that any activity, even one that is potentially boring, can provoke "flow" and provide enjoyment if challenge and skills are well balanced. According to flow theory, health workers need extrinsically motivated learning opportunities to maintain clinical knowledge and skills, but they also need intrinsically motivated learning, because the joy associated with such learning can buffer the work stress that causes disillusionment, burnout, and turnover.

ORGANIZING STAFF-DEVELOPMENT RESOURCES

The success of an agency's staff-development efforts depends on whether that function is the responsibility of line (command) or staff (advisory) personnel. A large agency is likely to have a freestanding education and training department whose director is a member of upper management. The education department can be organized into sections devoted to educational planning and resources; induction and orientation training; in-service education; and continuing education. In this way, educational supplies, equipment, expertise, and financing can be administered by a manager who is not distracted from employees' learning needs by care-delivery problems.

Many continuing education offerings are specialty nursing courses. It is not cost-efficient for every hospital to hire a highly trained specialist to teach each nursing subspecialty (tuberculosis nursing, oncology nursing, gastroenterological

nursing, care of ostomates, geriatric nursing, pediatric cardiology, and so on). Therefore, health agencies should pool their educational resources and mix their employees for core training courses. In that way, the staff-development office of each agency could hire one or two subject specialists and develop one or two specialty nursing courses to be made available to employees from several agencies.

It is also helpful for each health agency to arrange for a junior or senior college to provide selected staff-development courses for the agency's personnel. Ideally, they should carry academic credit that could be transferred into a graduate-level nursing program. This arrangement would decrease the health agency's educational costs and ensure that continuing education is provided by qualified teachers and supported by library resources. The contract creating an agreement between the health agency and college should stipulate the minimum number of enrollees required for each course offering, the method of billing the health agency for employees' tuition (if employees receive tuition benefits), and reports to college faculty about the employee outcomes of continuing education courses. When clinical specialty courses are included in a staff-development program (electrocardiography, hemodialysis, fetal monitoring), the best teacher for these courses is likely to be the agency's or another agency's resident nurse expert for that specialty. In this case, the agency should offer and the college should appoint the nurse to adjunct faculty status, so employees can receive academic credit for the course (Fig. 18-2).

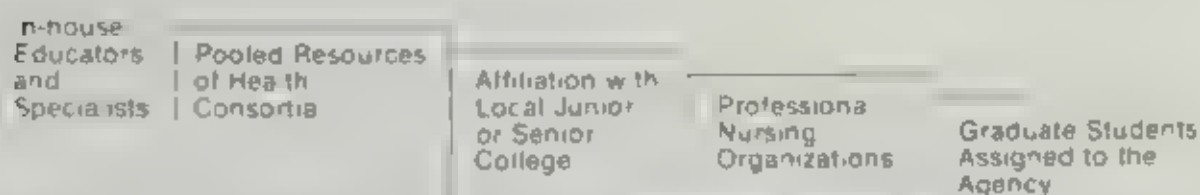


Figure 18-2 Sources of continuing education for nursing personnel

QUALITY CONTROL OF CONTINUING EDUCATION COURSES

There are several states where proof of continuing education is required for relicensure. In 1975 the American Nurses' Association (ANA) published *Standards for continuing education in nursing*. Thereafter, the ANA established a nationwide voluntary process for accrediting continuing education in nursing. Under the ANA system, selected state nurses' associations, specialty nursing organizations, and educational institutions are empowered to review the course outlines of proposed continuing education courses and approve continuing education credit for courses that meet established standards. Through the ANA program, selected educational and health institutions can become accredited as providers of continuing education for nursing (American Nurses' Association, 1986), following evidence that the institution meets the necessary administrative and educational criteria. In states where continuing education is required for relicensure, an agency that provides on-site accredited continuing education makes it easy for nurses to obtain the required number of continuing education hours. Therefore, accreditation as a continuing education provider can improve an agency's ability to recruit and retain professional nurses (Janvier, 1990). The National League for Nursing accredits those college programs that offer continuing education courses carrying academic credit.

STAFF-DEVELOPMENT ADVISORY COMMITTEE

The vice-president of nursing should appoint a Staff-Development Advisory Committee to coordinate all staff-development programs for employees, whether provided by the health agency or a local college. This committee should include the vice-president of nursing, director of staff development, nursing in-service director, director of continuing education, one faculty member, one staff nurse, and a representative from the cooperating college or health agency (if the agency is a consortium member). The

function of a Staff-Development Advisory Committee is to plan a unified staff-development program for a one- to three-year period, establish educational goals for the program, select content topics, identify resource personnel and materials, and balance agency productivity needs with employees' growth needs.

Staff-development efforts should be planned as a one-, two-, or three-year process, rather than a series of unrelated courses, to ensure that knowledge and skills acquired in one program will augment learning in later courses. Without long-range planning, efforts are likely to be intermittent, imbalanced, and crisis oriented. Without an integrated staff-development program, educational demands of more vocal employees are met at the expense of less assertive employees, and some topics are retaught frequently for small groups of learners.

A Staff-Development Advisory Committee should require that the agency's in-service teachers and affiliated educational institutions be accountable for employees' achievement of instructional objectives. The committee should annually review test data, performance ratings, educational records, and quality-monitoring scores to assess the effects of continuing education and staff-development courses on nursing practice. When indicated, the committee should request changes in course objectives, lesson content, teaching methods, lesson materials, or instructor for courses where desired learning outcomes are not demonstrated by the majority of enrollees.

COST OF STAFF-DEVELOPMENT ACTIVITIES

When health care funding is inadequate, there is a tendency for health agencies to shift funds from such "supportive" services as staff development, to patient care services. When funds are in short supply, the director of staff development is expected to compute the cost-benefit ratio for each educational offering. The costs of staff-development activities include hourly salary rates for teachers and employees being educated, costs of teaching equipment and

supplies (computers, projectors, copy machines, paper, transparencies, films, books), and overhead costs for educational space (heat, light, housekeeping, equipment depreciation, insurance, security, and fraction of administrative costs). An accountant from the Finance Department can help the director of Staff Development compute costs for each educational program provided in the health agency by agency personnel. The employees' hourly pay rate, multiplied by the number of class hours and added to tuition fees, would constitute the cost of a staff-development program taught by an affiliated college.

The costs of each staff-development program should be compared with the monetary or other value of program results. If a course in electrocardiography for nurses prepares all nurses in a hospital's coronary care unit to record electrocardiograms for assigned patients, so that three electrocardiographic technician positions can be dropped from the budget, one financial benefit of the course would be the saving of recruitment, salary, and fringe-benefit costs for three electrocardiographic technicians.

A nurse manager should understand the following terms in order to assist the finance office to compute the costs and benefits for each educational program. Sunk costs are monies already spent or committed for a particular purchase. In calculating equipment costs for a course in teaching diabetic patients, the manager could consider the price of a videotape recorder purchased during the previous year to be used in teaching patients to self-administer insulin a sunk cost of the program. A fixed cost is a necessary expense for an educational program that is unrelated to the volume of program output. The salary of a teacher for the course "Writing Behavioral Objectives" is a fixed cost, because the teacher's salary remains constant whether 5 or 20 nurses are enrolled in the course. A variable cost is an expense for an educational program that increases as program output increases. The cost of expendable supplies for an electrocardiography course is a vari-

able cost, because the costs of electrocardiograph paper, leads, and electrolytic jelly are higher for 20 students than for 10. A unit cost is the cost of one unit of production. In staff development, unit cost is the price of educating one employee for a particular skill or function. The unit cost of the hemodialysis course is the total cost for labor, equipment, supplies, and overhead to teach one nurse to dialyze a patient correctly.

An inordinate amount of professional time is used in planning an educational program from scratch. Comparative cost data show that for popular nursing courses, such as Care of the Dying, Management of Fluid and Electrolyte Imbalance, and Principles of Coronary Care Nursing, it is usually less expensive to hire an external specialist to teach the course than to assign an internal faculty member to design and teach the course once. McCampbell (1979) discovered that, when the educational cost per student instruction hour exceeded \$10.00, a health agency can save money by hiring an outsider to teach the course to one group of employees. On the other hand, if a 20- to 30-hour in-service course must be taught again and again to large groups of trainees, the agency should hire an instructor to teach the course, because less preparation time is required each time the course is taught, and the cost per student instruction hour decreases as class size increases. Methods for decreasing staff-development costs include use of in-house clinical nurse specialists to teach in-service and continuing education courses, requiring graduate students who collect research data in the agency to provide free in-service classes to interested employees, and designing staff-development courses that engage employees in self-directed learning, so the teacher can concentrate his or her attention on those few nurses who require individual instruction.

Cost-benefit information is needed for each staff-development program. In some agencies continuing education is included in the employee benefit package. However, economic pressures are forcing health agencies to cut non-

essential costs. In the past, health agencies absorbed the cost for nurses' staff development programs, without attempting to measure agency benefit from those expenditures. Today's budgetary strictures require that cost-benefit ratios be calculated for all programs, to differentiate those that merely entertain from those that improve worker and agency productivity. To conserve energy resources, the former should be canceled and the latter retained.

To reduce staff-education costs, a consortium of Minnesota hospitals developed a common staff-development program in which nurse experts from all four agencies taught 14 one- or two-day modules of a critical care course that was offered four times a year. Each hospital contributed equally to costs, which included salaries for an educator and a secretary; capital equipment; office supplies; and duplicating, printing, and postage costs. Each agency contributed some nurse faculty for the program. During the past decade the consortium's staff-development program decreased educational costs for all member agencies because of the economies of scale from larger course enrollments, larger faculty pool, and offering the course in a central location for employees of several agencies (Bailey et al., 1989).

GUIDELINES FOR STAFF-DEVELOPMENT PROGRAMS

In organizing staff-development offerings, the Advisory Committee and Staff-Development director should develop guidelines for program planners and teachers. The committee may decide that, excepting orientation, all in-service and continuing education courses should provide participants with continuing education credits. The committee should demand that behavioral objectives be included in each course outline and lesson plan to maximize practical program outcomes. The committee should require teachers to evaluate both the process and outcomes of each program and report results to the vice-president of nursing. Finally, the committee should establish selection criteria for hir-

ing staff-development instructors and assigning teaching responsibilities to in-service teachers and clinical nurse specialists.

The head nurses or patient care managers, in-service teachers, clinical nurse specialists, middle managers, staff-development director, and vice-president of nursing should share responsibilities for the educational development of staff nurses. To prevent duplication of efforts, the Advisory Committee for Staff Development should specify the educational role for each contributor. The vice-president of nursing's responsibility is to allocate educational funds and facilities equitably among all nursing divisions and units and to publicize interinstitutional agreements that provide educational opportunities for employees. The Staff Development director's role is to solicit employee requests for training, identify internal or external experts to teach needed courses, enroll employees in available courses, and preserve records of employees' participation in staff development. The head nurse or patient care manager's role is to identify staff members having nursing and teaching expertise that enable them to teach selected staff-development courses. The head nurse's role includes scheduling employees for staff-development activities, serving as preceptor for nurses needing a management practicum, helping employees apply new theories and techniques to practice, and evaluating each nurse's achievement of staff-development course objectives.

THE STAFF-DEVELOPMENT INSTRUCTOR

Each staff-development teacher should possess a high level of nursing knowledge and skill in one clinical specialty. The staff-development teacher's personal power determines her or his credibility as change agent and role model. Staff-development teachers should be skilled in using direct and indirect teaching methods in group and individual education. Continuing education for adults involves unlearning out-of-date and incorrect information, followed by relearning forgotten content, expansion of pre-

vious learning, and refinement of practice skills. These processes are more difficult to facilitate than first-exposure learning of unfamiliar content.

The advantage of using a health agency employee to teach a staff-development course is the insider's familiarity with the work situation in which the learner must implement new knowledge and skill. The learner also feels more comfortable in contacting the teacher for follow-up instruction when both are employees of the same agency.

When a staff-development course must be taught by an agency employee, the director of Staff Development need not select the reigning subject expert to do the teaching. The course instructor should have a thorough understanding of the subject, display enthusiasm for the topic, present abstract ideas clearly, interrelate theoretical and clinical content, and communicate respect for others' ideas. Some clinical experts do not possess these abilities.

The targets for staff-development courses are well-educated and self-disciplined adults. Therefore, the role of staff-development teacher is not that of information giver but of role model for effective learning. Revelatory teaching is less effective than discovery learning in upgrading professional nurse performance. When a staff-development teacher possesses information not available in books, journals, films, or tapes, it is appropriate for the teacher to supply students with facts, concepts, and theories. When needed information is available in printed, pictorial, or other media, the teacher should devote course time to demonstrating how to extract information from clinical situations, analyze sense data, draw conclusions from observations, manipulate ideas to achieve professional goals, and evaluate outcomes of nursing interventions. He or she should use patient care problems from the students' clinical setting as course content and show how observation, investigation, analysis, problem solving, and evaluation should be applied to practice problems. The teacher should also reward stu-

dents for discovering key facts and relationships on their own, thereby encouraging the type of self-directed learning that culminates in expert status.

The most successful staff-development teacher is a trainer-coach (Smoyak, 1978). A coach identifies a player who demonstrates potential for success and helps that individual acquire higher-level skills and shed attitudes or behaviors that prevent expert performance. Coaching is suited for adult education, because it emphasizes learner autonomy. In a traditional teacher-student relationship the teacher occupies a central or "starring" role, and the student is relegated to a subordinate role. In a coaching relationship, the coach and the trainee focus their attention on the trainee's abilities and unrealized potential. As a result, the trainee becomes the dominant member of the pair, and the coach occupies a shadowy background position.

When a nurse is appointed preceptor or role model for a nurse in staff development, he or she may use direct or indirect role modeling to teach new skills. Direct role modeling occurs when a clinical specialist or nurse clinician allows a staff nurse to observe the specialist's performance of a skilled nursing measure and ask questions about the measure's purpose and outcomes. Indirect role modeling occurs when the specialist analyzes a patient care problem referred by a trainee and guides the trainee in the proper method of handling the problem. Direct role modeling provides stronger, multisensory stimulation for behavior change. However, indirect role modeling is preferred when patient privacy must be protected or the preceptor's presence in the care situation jeopardizes the patient-nurse relationship.

In developing nurse managers, the most effective coach is the trainee's immediate supervisor, because the next higher manager is most familiar with the new manager's job responsibilities, can best assess the new manager's abilities, identify performance problems, and prescribe corrective experiences.

ORGANIZATION OF STAFF-DEVELOPMENT PERSONNEL

When a health agency has a separate educational department or division, teachers and planners should be organized in a two- or three-level hierarchy. Instructors who teach core courses to large numbers of trainees on a repeated basis would be located on the basic level. Basic-level teachers would be responsible for teaching induction classes, intravenous administration techniques, cardiopulmonary resuscitation, fire rescue techniques, infection-control procedures, and electrical safety precautions. Educators and planners who develop, teach, evaluate, and redesign complex specialty courses, such as coronary care, intensive care, physical assessment, hyperalimentation procedures, chemotherapeutic agents, trauma care, and hemodialysis procedure, should be situated in a higher level of departmental hierarchy to recognize the greater cognitive and skill challenge associated with teaching specialty courses. Instructors at both levels should specialize in one or a few subjects to permit the development of teaching expertise and reduce class-preparation time. Teacher effectiveness is heightened when each staff-development teacher keeps clinical knowledge up-to-date by working as a staff nurse for a month or two each year.

PREFERRED TOPICS FOR STAFF-DEVELOPMENT PROGRAMS

To heighten employees' motivation for seeking staff development, course offerings should be linked to employees' employment interests and career aspirations. The Staff Development Advisory Committee should poll all employees and managers and interview a representative sample of each group to identify desired course topics. Some topics are selected by nurse managers who identify a lack of employee knowledge or skill that can be remedied through organized instruction. To train staff nurses for appropriate response to cardiopulmonary arrest, one Veterans Administration hospital provided a six-hour continuing education program titled

Code Blue: Nurse's Role and Responsibilities (Owen and Cole, 1986). The course featured a learning needs assessment, precourse reading, modularized instruction, and demonstration skits. To prepare nurses to meet nursing home residents' mental health needs, administrators polled residents and employees to learn their opinions about residents' needs for emotional support and employees' needs for training in providing emotional support. Findings revealed that nurses needed education in the following topics: coping with pain, crisis intervention, sexual needs, religious needs, resident-family-friend interactions, and reminiscence therapy (Canar and Johnson, 1986).

Some staff-development programs are aimed at alleviating employees' problems, rather than meeting patients' needs. A workshop on burn-out prevention training was provided to staff nurses in three western Veterans Administration hospitals to protect nurses against work-related stress (Randolph et al., 1986). After attending the workshop, nurses demonstrated less somatization, interpersonal sensitivity, depression, and hostility than did a control group. In one hospital several general units closed, and intensive care unit census increased. Consequently, nurses were transferred from general units to the intensive care unit. To smooth role transition, reassigned nurses were given a six-week transfer orientation program that included explanation of intensive care policies and procedures, description of intensive care work routines for each shift, and practice in intensive care skills with supervision by a clinical nurse specialist (Lachance-Everhart, 1986).

When admission of AIDS patients to a New Jersey hospital generated employee fear and anxiety, administrators implemented a multi-method staff-development program to combat unrealistic fears with factual information about AIDS causation, transmission, manifestations, treatment, and complications (Hartnett, 1987). Following completion of the program, nurses were more skillful in recognizing AIDS symptoms in undiagnosed patients and more willing

to care for AIDS patients. At New England Medical Center a four-track staff-development program augmented nurses' experiential learning in one of the following: committee work, research, community service, or professional publication (Woldrum et al., 1983).

When staff-development topics are selected for the forthcoming year, the Advisory Committee must acknowledge that the nursing department's needs do not coincide with staff members' needs. Committee members who represent the two groups must strike a balance between agency goals for increased productivity and employee needs for job satisfaction and career advancement.

PLANNING FOR STAFF-DEVELOPMENT PROGRAMS

When a topic has been selected for a staff-development program, the instructor should write course objectives (with aid from a curriculum expert, if necessary) that specify the exact behavioral change expected of participants. These objectives should be few and written to describe observable behavior. Each objective should quantify the desired behavior whenever possible and specify conditions under which the desired behavior is to be observed.

For instance, at the conclusion of 15 hours of instruction in electrocardiography for nurses, the student will be shown electrocardiographic strips illustrating sinus arrhythmia, sinus bradycardia, sinus tachycardia, paroxysmal atrial tachycardia, premature atrial contractions, first-degree atrioventricular block, premature ventricular contractions, ventricular tachycardia, and ventricular fibrillation. The student will correctly identify ten of the twelve arrhythmias within a ten-minute period.

LEVELS OF LEARNING

A systems approach to staff development requires a manager to plan methods and materials for two or three levels of learning for each study topic. A superficial but useful level of learning entails memorization and simple motor re-

sponse. Examples of first-level learning are memorizing usual doses of commonly administered emergency drugs and the habit of reading a drug label three times before administration. At the second, or adaptive learning level, the student acquires information in one form and adapts it to a slightly different situation in the work site. Second-level learning is demonstrated when a nurse who has learned to perform cardiopulmonary resuscitation on a mechanical doll on the floor is able to successfully resuscitate a respiratory arrest victim in a hospital bed. At the third, fairly complex, level of learning, the student acquires a high degree of interpersonal understanding and skill, isolates basic principles embedded in complex operations, and integrates isolated facts into meaningful patterns. An example of third-level learning is a nurse who is coached in skills of history taking, physical examination, and laboratory test interpretation, then integrates this knowledge and skill to provide primary care to a group of chronically ill patients. At the fourth, extremely complex, level of learning, a student determines the values of significant individuals and groups and coordinates the others' values with personal self-actualizing needs to define a specific professional role for herself or himself. An example of fourth-level learning is a former public health nurse who completes a nurse practitioner program, then volunteers to organize a health maintenance organization in a slum.

TEACHING METHODS AND AIDS

Teaching methods for a staff-development course should cause students to actively manipulate course content. The methods for each course should fit course objectives. The lecture or expository method is effective when a fairly large volume of new information must be acquired by the student in a short time. The discussion method is preferred when problem-solving skills and attitudinal changes are needed. Film or filmstrips and discussion facilitate the transfer of new learning to the student's work setting. Case studies are helpful in sensitizing

students to clinical issues, developing analytical skills, and teaching problem-solving techniques. A learning module or "package" includes an assortment of materials and exercises designed to augment information and skill in a narrow content area. Modular learning materials include pretests, theoretical statements, slide sets, audiotapes, models, and clinical practice assignments (Stetler et al., 1980). Role-playing and simulation enable the learner to experiment with different approaches to problem solving without the risk of failure (Genovich-Richards and Carissini, 1986). Role modeling enables a student to learn a total complex of skills in a real-life setting by vicariously experiencing the results of effective performance by another. For role modeling to occur, the student must be a novice and the teacher must possess superior-level knowledge and skill in the subject under consideration. Successful role modeling requires the student to trust the teacher enough to admit mistakes, reveal ignorance, and accept suggestions. Management games enable a student to confront serial decision points in solving a complex problem and to examine payoffs from different courses of action—without personal risk of loss.

The adult learning process should be constructed in pyramid fashion, with the majority of learning activities consisting of first-hand experiences in real-life situations, somewhat fewer experiences with audiovisual media depicting situations, such as those encountered in the clinical area, and relatively few experiences where information is conveyed through lecture or printed material (Taylor and Lippitt, 1975).

Audiovisual Equipment for Staff Development

After teaching methods for a staff-development course have been decided, the teacher should locate or develop teaching aids to highlight important facts and concepts in the lesson. Learners are more secure when they visualize the phenomena they are expected to understand and apply. When multiple senses are used to perceive a phenomenon, memory of the phe-

nomenon is sharpened and deepened. Audiovisual media are most often used in group teaching. A more sophisticated use of films, filmstrips, slides, transparencies, videotapes, and computerized programs is to include these in learning modules for individualized study. Mediated self-study is highly effective for four reasons.

First, learner motivation is the single most powerful variable in the learning process. When a person is allowed to work through a self-study module at his or her own pace, he or she can focus on the lesson aspects of greatest relevance to personal interest.

Second, course materials must be logically organized to be understood. When preparing audiovisual aids, the teacher is forced to identify the two or three most important lesson concepts and organize them according to some logical principle, such as chronology, cause and effect, system components, or simple-to-complex progression. This emphasis on a few key points facilitates students' understanding of lesson content.

Third, repetition of lesson content improves retention of detailed information. Audiovisual materials can be organized as programmed learning packages, that provide new information in small increments, with frequent repetition and summarization.

Fourth, prompt feedback is needed to confirm students' correct responses and eliminate errors. The audiovisual package used to present new material can be used again following instruction to test retention. For this purpose the videotape or pictures should be shown without audio or printed captions, and the student should be asked to identify pictured objects or explain exhibited phenomena. The learner can check her or his response accuracy by replaying the package with sound or captions restored.

When a staff-development department is organized, the director should compile a list of available or needed films, filmstrips, videotapes, and slide sets. Audiovisual machines should be purchased for displaying the appropriate software. Most nursing software is produced in the

form of 16 or 35 mm movies, 1½- and ¼-inch videotape, audiotape, and overhead transparencies. Consequently, the education department should stock the following equipment:

1. Filmstrip projector for 35 mm film
2. Slide projector for 35 mm slides (2" × 2") with a 600 W bulb for large-group viewing or a 300 W bulb for small-group viewing
3. Overhead projector for displaying transparencies
4. Film loop projector for 3- to 10-minute film cassette programs
5. Movie projector for 16 mm film
6. Videotape player and monitor for displaying commercial and homemade videotapes
7. Portable video camera and video recorder for making videotape programs in-house
8. Microcomputer(s) or portable computer(s)
9. Electrocardiographic simulator for oscilloscope reproduction of wave patterns seen in various cardiac arrhythmias

In deciding whether to purchase or produce audiovisual aids, teachers should follow this guideline: If agency needs for teaching aids are well defined, fairly typical, and unlikely to change over time, the teacher should purchase commercially produced media when a product is found that fits present course needs. If agency needs for teaching aids are unique and likely to change frequently, teachers should use internal and external resources to produce their own audiovisual aids.

Preparation of audiovisual materials

Nurse instructors and clinical nurse specialists are untrained in media production methods. Therefore, the staff-development teacher should obtain a media specialist's help in preparing transparencies, slides, or videotapes, to ensure that materials are artistically and educationally sound. A media specialist will help the teacher to define user population, objectives, and con-

tent for each module; restrict the module to a single concept; identify knowledge underlying the central concept; limit module length to learners' attention span; organize content in proper sequence; and calculate personnel and materiel costs of production. After a teacher is led through these steps two or three times by a media specialist, she or he should be able to develop learning modules with minimal help from the expert.

ORIENTATION

The most common form of staff development is orientation. The purpose of orientation is to prepare the employee to function effectively in the position for which she or he was hired. Goals of orientation are twofold: (1) to rapidly assimilate the employee into the work force; and (2) to ensure that the newcomer is a safe practitioner before allowing him or her to care for patients. The content for each worker's orientation should be determined by tasks included in the job description and a personal skills inventory that the employee completes during induction (Janvrin, 1990). Newly hired nurses have different educational and employment backgrounds, so orientation must be individualized (O'Neal, 1986; Primm, 1987). Orientation should fill gaps in the employee's repertoire of knowledge and skills, without overloading her or him with information of no immediate value. One way to prevent information overload is to give the employee an orientation manual containing detailed information about topics that the newcomer should be made aware of but need not analyze until she or he needs to apply it. Orientation for nursing staff members is discussed in greater detail in Chapter 13.

NURSE INTERNSHIP

The nurse internship is a variation on the traditional orientation program. Because of rapid scientific and technical advances, nurses can acquire only a basic foundation for practice during undergraduate nursing education. Some health agencies provide newly graduated nurses

with a closely supervised internship to ensure they have sufficient knowledge and skill to provide safe patient care. The nurse internship has three purposes: (1) to enhance recruitment; (2) to facilitate the transition from student to graduate nurse role; and (3) to decrease the time spent by the head nurse in basic skill training. A survey of East Coast hospitals revealed that one in seven institutions provided an internship program, ranging from six months to one year. Graduates of all three basic nursing education programs were enrolled, but the internships were designed primarily for associate degree graduates (Gibbons and Lewison, 1980).

The typical internship offers experience in medical-surgical nursing. A yearlong internship may provide rotation to one clinical specialty unit, after experience on a medical-surgical unit. The intern's clinical activities are supervised by an older staff nurse on the same unit (the "buddy" system) or a specialist-trainer from the Staff-Development Department, who advises the head nurse on how to assign the intern and meets with the intern to provide daily process consultation (the preceptor approach). Whether a "buddy" or preceptor system is used, the internship includes classes, seminars, and workshops, where interns meet with instructors, preceptors, and head nurses to present case studies and special projects in which they are helped to integrate theoretical and clinical concepts.

One university hospital used a six-month internship program to prepare newly graduated nurses to work in a critical care unit. Following the internship, which included classroom instruction and clinical preceptorship in various clinical care skills, the interns' score on the Critical Knowledge Test was significantly higher than those of newly hired, experienced critical care nurses. Testing at six and twelve months following employment revealed that the interns had retained the critical care knowledge that they acquired during the internship (Resler et al., 1991).

In another university hospital an individualized nurse internship program was inte-

grated into the agency's primary nursing system. Preceptors for the internship were experienced staff nurses in the role of primary nurse. Interns were newly graduated nurses who assumed the role of associate nurse to one of the primary nurse-preceptors. The third member of each primary nursing orientation group was an advanced baccalaureate nursing student who served as assistant nurse to the primary nurse-preceptor. This primary nursing-internship-orientation model ensures longer, more frequent, and more practice-based interaction between orientee and preceptor than is possible when one preceptor supervises three or four orientees in different nursing units (Heyrman et al., 1987).

MEMO CAPSULE

Staff-Development Methods

- Nursing skills checklist
- Nursing skills assessment center
- Six- to twelve-month internship for new graduate nurses
- Preceptorship system for nurses assigned to critical care units
- Refresher course for nurses returning to practice after unemployment

CAREER-MOBILITY PROGRAM

Employee interest in staff development is strongest in an agency where career ladders and lattices facilitate job mobility. The purposes for a career-mobility program are (1) to improve worker morale by eliminating dead-end jobs; and (2) to decrease personnel turnover. An employee who observes coworkers rising through the ranks to higher-status positions is motivated to undertake disciplined study and practice to win personal advancement. When an agency provides ample opportunities for promotion, capable staff nurses are less likely to be pirated

by another institution through offers of a marginal salary increase.

Presently, nurse executives are redesigning staff-development programs to promote job mobility for nurses at all organizational levels. Associate degree programs have been redesigned to enable licensed practical nurses to progress to an associate nursing degree with minimal time loss. Baccalaureate programs have been redesigned to provide academic credit for the clinical knowledge and skill of associate degree and diploma nurse applicants. Masters degree programs have been reoriented to capitalize on motor, cognitive, and social abilities developed at the bachelor's level.

Career ladders boost nurses' morale, because professional workers' job satisfaction derives from the characteristics of the work itself, rather than those of the work environment (Herzberg, 1968). Career lattices and job rotation permit lateral mobility, which increases employees' job knowledge, relieves boredom and burnout, and improves interunit cooperation (Kaye, 1982).

In a southeastern hospital, the critical care nurse internship was integrated with the agency's career ladder for nurses. Linkages between the two systems allowed entry-level staff nurses who completed the Critical Care Internship Program to ascend the ladder to Clinical Nurse I level. Clinical Nurse IIs in the critical care unit served as preceptors for the Critical Care interns. Clinical Nurse IVs (clinical nurse specialists) managed the Critical Care Internship program, serving as liaison between interns, unit managers, physicians, and other critical care staff (Collins and Moyer, 1987).

IN-SERVICE EDUCATION

In-service education is the second most common staff-development activity. The purpose of in-service education is to keep the employee's job knowledge and skills up-to-date and in phase with current job demands. The JCAHO requires that nursing in-service programs be offered on a continuing basis and employee attendance be documented. Generally, in-service

programs are designed to inform employees about new patient care procedures, new diagnostic or treatment techniques, proper care and operation of equipment, changed function of agency personnel, and new agency services. Authorities disagree about the best way to organize in-service programs. On one hand, it is essential to establish a centralized Staff-Development Department where a pool of instructors teach a common core of practice information to nurses from several clinical areas and members of the instructor group are deployed to teach on one or another unit as special training needs are identified for workers in that unit. Disadvantages of a centralized staff-development department arise from the fact that nursing has become exceedingly specialized. In general, content that is applicable to every clinical area is taught in the undergraduate program, orientation, or internship; and no staff-development teacher has sufficient expertise to teach specialized content for any nursing specialty unit. Furthermore, teachers are unable to judge which of the nursing performance problems on each nursing unit are amenable to correction by remedial instruction.

A staff-development department should be organized to combine the advantages of centralization and decentralization. At the Medical University of South Carolina, the in-service teacher assigned to each clinical area participates in primary nursing, so she or he will be able to identify patient care problems and nurses' performance deficiencies. After identifying common nursing practice problems in one division, the teacher designs in-service programs to remedy these problems, enrolls appropriate nurses in each program, and maintains records of course completion. In addition to teaching classes in one clinical specialty, each instructor teaches one general in-service class to large groups of nurses from all clinical departments. Eighty-five percent of the teacher's time is devoted to one clinical division and 15 percent is devoted to centralized staff-development programs.

The purpose for in-service education is to improve nursing care quality, so that classes should be designed to upgrade employees, not entertain them. For example, an instructor should not schedule a class simply to display an "interesting" film offered by a vendor of health care equipment or supplies.

Nurse managers should not assume that an educational program is the appropriate remedy for every instance of nurses' performance inadequacy. In-service classes should only be used to remedy those knowledge and skill deficits that can be repaired by retraining. When employees who possess requisite knowledge and skill depart from performance standards, corrective discipline is called for. Providing in-service instruction to employees who intentionally flout agency regulations weakens employee self-discipline and lowers morale.

MANAGEMENT DEVELOPMENT

Management development is a form of staff development that is growing in popularity. Respect for authority figures has declined in American society; in the family, school, church, business, and politics. Lack of respect for authority has decreased managers' potential effectiveness. When nursing executives recognized that autocratic leadership was ineffective in motivating contemporary youth, they mounted staff-development programs to help nurse managers expand interpersonal skills and develop more democratic leadership style. Inherent differences between nursing and management traditions make it difficult for nurses to manage effectively. Nursing is heavily value-laden and focuses on individual patients and health workers who are embedded in a large system. Management emphasizes a rational or objective approach and focuses on a total system, rather than individuals within the system. A development program for a nurse manager should provide several vantage points from which to view leadership responsibility: the viewpoints of an executive, an administrator, member of another health discipline, a subordinate, a client, and a

taxpayer. Staff development is needed by managers at all hierarchical levels, but enhancing the management skills of a first-level nurse manager will produce the greatest improvement in patient services.

A systems approach should be used for management-development programs. The program to augment managerial skill should be an integrated whole, consisting of interrelated segments, each devoted to a single management function: planning, organizing, staffing, leading, and controlling.

The first step in a management-development program is to establish agreement among top executives and middle managers as to proper level of authority, responsibility, and accountability for managers at every level. Then, top executives should evaluate performance of managers at each level by analyzing personnel, production, and quality reports. Review of incident reports, liability suits, and turnover rates may reveal ineffective performance by a section chief. Review of personnel and supply costs in all units of a division might reveal inefficient management by a division director. Review of patient audits and quality surveys might indicate ineffective leadership by a head nurse. When signs of ineffective leadership are identified, cause for each manager's inadequacies should be diagnosed. If a problem results from lack of training or improper attitudes, an educational program should be designed to remedy the problem.

Although an external management expert is helpful in planning a staff-development program for leadership personnel, management development is a line, not a staff responsibility. Therefore, each manager's immediate superior is ultimately responsible for coaching the manager toward higher performance levels.

Each nurse manager is seen by subordinates as a representative of agency administration. However, the first-level nurse manager has difficulty identifying with the management team, because she or he spends more time with direct caregivers than with executives. Top executives also tend to treat the head nurse as a patient

care expert, not a management expert. Accordingly, the first step in developing the first-level manager is for the vice-president of nursing to provide the head nurse with privileges normally associated with managerial status, such as flexible time, participation in policy making, authority to hire and fire, budgetary control, and self-evaluation.

The content of each management-development program must be individualized to fit the needs of the agency and individual managers. Topics usually include political issues; economic principles; legal constraints; cultural determinants of behavior; trade unionism; employment practices; leadership styles; assertiveness; decision making; communication techniques; interviewing skills; performance appraisal; management of change and conflict; report writing; statistical analysis; and labor-contract administration.

A manager's success is proportional to her or his relational abilities; so management development should include the study of group dynamics. Group experiences can help a manager to gain insight into ineffective personal responses to others' hostility, criticism, dependency, affection, and manipulation. Group experiences can be designed to effect such attitudinal changes as heightened tolerance for individual differences, intention to cooperate with other managers, and desire to experiment with new problem-solving methods (Taylor and Lippitt, 1975).

Management development is an educational as well as a training activity. Development of nurse managers is broader in scope than simple skill training and deeper in intent than simple consciousness raising. Management development requires more than a task-limited approach, and each manager has different developmental needs. Therefore, only a small proportion of management-development activities should occur in the classroom. Transfer of training is maximized when instruction occurs in a situation closely resembling that where new knowledge and skill should be applied. **Case**

quently, managers can learn to make accurate analyses, produce sound decisions, and take effective actions only by confronting real problems and attempting to solve them while a preceptor clarifies the purpose and effects of each managerial action.

Grappling with real work problems while receiving feedback from a knowledgeable superior is the best method for learning management skills. However, a background of management information is needed to design situation-specific and situation-appropriate interventions. A new manager's immediate supervisor may not possess a wealth of information on all subjects bearing on management functions, such as occupational psychology, group dynamics, labor relations, economics, labor law, and accounting. Specialized information from related disciplines is best conveyed through academic courses that are offered apart from the work site by subject specialists with management experience. Also, a new manager's immediate supervisor may lack expertise in specific management tools and techniques. Contemporary managers should be taught techniques of flow charting, job analysis, job evaluation, program budgeting, patient care auditing, and human resources accounting. Older, traditionally educated nurse managers are untrained in these techniques. A management trainee should learn these and other newer management techniques in short, intensive workshops, where each tool is applied to a problem in the trainee's assigned work setting.

Management is a complex, multilayered pursuit. There is insufficient time in any academic course or workshop to thoroughly explore applications of course content to each manager's job responsibilities. Therefore, management course teachers should be exceptionally stimulating communicators, who can present course content in a manner that motivates students to continued study of course topics on an individual basis.

Because the new manager's immediate supervisor is ultimately responsible for her or his

educational development, coaching is the preferred method for management training. Before coaching can occur, the new manager's superior must create an atmosphere of trust and support, assess the trainee's strengths and weaknesses, review the trainee's job responsibilities, and arrange time schedules of both to ensure that the senior manager will be available to the trainee on a continuing basis. Of course, the trainee's immediate supervisor may be well informed about the trainee and the job, but be psychologically unable to tolerate a subordinate's prolonged dependency. In such case, the trainee should be reassigned to a more sympathetic, nurturing superior, who is willing to invest considerable time and effort in a protégé for the sake of personal and agency benefits.

A management coach should instruct a trainee to attack every problem by first deciding whether the difficulty relates primarily to content or process. In other words, the trainee should be taught to differentiate what is done—by the manager or another—from how it is done. This training will prepare the trainee for the concerns of activists and sensitizers in the work force (task specialists and process specialists of the Bales and Slater [1965] classification) and help to balance these two emphases when leading subordinates toward agency goals.

Every management trainee should be coached in planning techniques, because careful forethought is needed to coordinate the efforts of diverse health care specialists. In nursing, as in business, government, or medicine, scientific methods of data collection and decision making will minimize risk and maximize productivity. Effective planning is based on processed, rather than raw, data, so a beginning manager should be taught how to use statistical analysis to obtain accurate and reliable information for planning purposes.

Decision making is generally unconscious and is strongly influenced by the individual's psychological mind-set at the time the decision is made. Decision making is the manager's most

difficult task. Management risk can be reduced by using a mathematical approach to decision making. Therefore, management trainees should be taught how to raise decision making to the conscious level and select an appropriate decision strategy for each management problem. (Chapter 23 provides detailed descriptions of useful decision methods.)

Participative management, in which responsibility and authority are distributed throughout all layers of the hierarchy, is one means to improve the quality of middle managers' decisions. Trainees can be helped to acquire the information they need to make sound decisions by appointing them to membership on such management committees as the Policy and Procedure Committee, Affirmative Action Committee, Disaster Committee, Quality-Improvement Committee, and Patient Records Committee.

A typical manager spends 80 percent of her or his time communicating with others (Taylor and Lippitt, 1975). Management trainees should be given guided experience in making formal presentations to professional groups, leading discussions with members of other health disciplines, speaking extemporaneously before a large group, acting as host or hostess for a formal social event, writing formal letters of inquiry and appointment, and presenting quantitative information in narrative and tabular form. Escalating change in nursing and health care makes it necessary for nurse managers to communicate fluently and forcefully with superiors, coworkers, and clients. To overcome the stultifying effects of the information explosion and resulting word glut, the manager should use concrete objects and audiovisual media to communicate ideas, whenever possible. A manager's training in communication techniques should include instruction in computer skills and newer methods of software production and use.

Management trainees can acquire useful job information and critical work skills through planned rotation through a series of positions: nurse clinician, in-service teacher, assistant head

nurse, discharge planner, head nurse, quality-improvement surveyor, committee chairperson. Another method of teaching management skills is to appoint the trainee to an observation post from which he or she can study the behavior of an experienced manager at close range for an extended period. The position of assistant to a department director or vice-president is tailor-made for such observation.

Occasionally, management games can enhance analytical and decision skills. A management game is a dynamic teaching device that requires sequential decision making in a scenario that simulates an actual work situation. Games are of two types: (1) stochastic games, in which the outcome is determined by use of random numbers provided by the game director; and (2) nonstochastic games, in which the outcome is determined in advance by the game designer. There is little evidence to show that management games improve the quality of management decisions. However, the sense of urgency and competition engendered by game playing motivates players to careful information gathering and use of mathematical decision techniques, thereby accustoming them to using these techniques on the job. Unfortunately, even a carefully constructed game presents a simplistic view of management activities, because much information about the prototype problem is omitted from the simulated problem. Therefore, the trainee is forced to select a solution from a list provided by the game designer, rather than creating an innovative, personal solution.

Every large health agency should implement a management-development program, because promotion from within is the most promising source of managerial talent. One survey of business organizations revealed that 90 percent of supervisors, 73 percent of middle managers, and 51 percent of executives were promoted from within and that all had required some type of management development as a preparation for their new positions (Dessler, 1984). Generally, a management-development program includes projecting the agency's future management

needs and inventorying the management skills of present employees to identify available managerial talent. Then a management-replacement chart is prepared to identify potential internal candidates for each future management slot and to prescribe each candidate's needs for further development. The latter information is used to design a management-development program for each internal candidate.

One study revealed that managers at different levels of organizational hierarchy have different developmental needs. Executives' most common developmental needs were ability to manage time, skills in team building, and proficiency in planning and organizing. Middle managers' most common development needs were ability to evaluate employees, ability to motivate subordinates, and skill in prioritizing objectives. Lower-level managers' most common development needs were ability to motivate employees, skill in evaluating subordinates, and leadership skills (Digman, 1980). After identifying the learning needs of presently employed managers and candidates for managerial positions, an individualized development plan for each employee should be planned by her or his superior. The program should include some in-house and some external activities, such as job rotation, coaching, special project assignment, case study analysis, management games, outside seminars, and enrollment in university courses.

A staff-development program for middle managers in an East Coast hospital included a three-day workshop on basic leadership concepts, followed by a series of experiential learning modules that provided deeper exposure to the same concepts. Each module included a pretest, a theoretical presentation of management principles related to the concept, classroom role play or simulation, a clinical assignment requiring the application of the concept, and group debriefing session, where participants reported the results of their clinical applications. The modularized management-development program is successful, because participants perceive the presentations and assignments as rel-

evant to their job needs and administrators find the program less expensive than sending managers to a series of external workshops (Stetler et al., 1980).

In one study, training in the full scope of leadership responsibility produced short-term change in nurse managers' leadership style (Johnson and Argenio, 1991). However, managers in this study used only two of four possible leadership styles. Managers' dominant style was high task/high relationship, and supporting style was high relationship/low task. Neither the high task/low relationship or low task/low relationship style were used by the managers. These researchers claim that the studied managers' dominant style (high task/high relationship) is ill-suited for establishing a professional practice climate or motivating staff nurses to assume greater responsibility. Perhaps staff-development programs for nurse managers should include suggestions for displaying low task/low relationship behavior, such as a consultive approach to supervision and communication of task-related information through brief, formal messages devoid of emotional content.

Mentoring

Another popular method of professional development is affiliation with a mentor. Mentoring is a process by which an older, wiser, more experienced, and successful nurse facilitates a younger coworker's professional advancement. Both parties profit from an effective mentoring relationship. The mentor serves as teacher, sponsor, guide, role model, advocate, and counselor for the protege, modeling effective leadership behavior, introducing the junior to professional and organizational power brokers, recommending the protege for influential positions, alerting her or him to professional and educational opportunities, assisting her or him with research and writing projects, protecting the junior from criticism, and bolstering the protege's self-confidence during defeat. Through championing by a mentor, the protege rises more rapidly through the ranks than unmen-

tored peers, because less of the protege's energy is expended in unproductive trial-and-error learning and exhausting competition for advancement.

The mentor profits personally from the protege's admiration and affection and the fulfillment resulting from actualizing unrecognized potential in a newcomer. The mentor benefits professionally, because the ability to attract and retain a protege demonstrates superior expertise and charisma. In time, the protege reaches a position where it is possible to repay the mentor's largesse by championing the mentor's ideas and causes, recommending the mentor for offices and honors, hiring the mentor as consultant or speaker, and introducing the mentor to influential persons in the protege's support network (Vance, 1982). Darling (1985) claims that mentoring is successful only when a suitable match is made between the mentor's style and protege's needs. The protege's previous experience will determine a preference for authoritarian or permissive mentoring, desire for directed or discovery learning, and amount of direction needed from the older professional.

ORGANIZATIONAL DEVELOPMENT

Improvement of individual employees and improvement of the total organization system are inextricably intertwined. Hence, one method of staff development is organization development. Organization development is a method for improving the processes by which employees interact to achieve organizational goals.

With time, health care agencies become increasingly complex and health workers become increasingly interdependent in providing care to clients. The effective operation of a complex agency requires a smooth-functioning management team to obtain full cooperation from all agency employees (Nelson and Schaefer, 1980). Organization-development activities improve management strength and teamwork through role clarification, process consultation, team

building, skill training, and management by objectives.

Often, an agency's organizational development program is directed by an external consultant, who is hired by the top executive to weld independent department heads into a coordinated management team, help them to set management goals, rank them by priority, and invest resources, so that goals are achieved in the shortest possible time.

The focus of organization development differs from that of management development. An organization-development consultant treats the agency's total social system as a client whereas a management-development consultant focuses attention on the needs of an individual manager or group of managers.

It is advisable to take a systems approach to organization development. Each organization development plan should describe and quantify necessary inputs, throughputs, and feedback to reach desired outcomes. With direction from the organization-development consultant, the total work force would advance through the following steps:

1. Diagnosing the organization's major performance or productivity problem
2. Gathering data about problem manifestations, causes, effects, and interventions likely to relieve the problem
3. Increasing workers' understanding of the problem and ideal solution
4. Achieving commitment of the total work force to improving agency problems by implementing the indicated remedy
5. Training employees in the abilities needed to improve agency operations
6. Evaluating results of employee training

The success of an organization development effort depends on the accurate identification of organization problems, logical prioritizing of problems, identification of changes that will improve organization function, and managing the work force to effect necessary changes quickly and economically. The organization-develop-

ment consultant's most important function is to restrain managers from diagnosing problems and generating solutions until the total work force has examined relevant problem data and reached consensus regarding problem diagnosis, problem causes, and actions to be taken in improving agency function.

TEAM BUILDING

Some organization-development consultants combine problem identification and team building in a series of workshops. In these workshops, the consultant introduces discussion topics and comments on group process to focus group efforts on problem solving. Later, as a group structure evolves and employees assume greater responsibility for self-direction, the consultant turns over leadership to members of the work force. The goals of such workshops are to identify problems confronting the group, get group agreement on problem definition, create a sense of problem ownership, rank problems according to importance, and assign a task force to resolve each problem.

Blake and Mouton (1969) advocate a grid approach to organization development and team building. They describe three sets of values that can be used by organization-development consultants: (1) love-trust approach; (2) power-coercive approach; (3) insight-consensus approach. Early development consultants claimed that organizational malfunction resulted chiefly from lack of trust between supervisor and subordinate. Therefore, they advocated improving the quality of interaction among employees by facilitating the catharsis of frustration, hostility, and anxiety in a protective setting. Later organizational development consultants claimed that the principal cause for organizational malfunction was misuse of power. They concentrated on redistributing power between superiors and subordinates and coaching employees in compromise and negotiation techniques. Contemporary theorists assume that employees are highly motivated to solve organization problems and have some familiarity with group

problem solving. If employees so motivated are coached in team-building techniques, they can identify faulty interactions, halt power-motivated control tactics, and remedy love-trust deficiencies among employees (Taylor and Lippitt, 1975).

If the organization development consultant is an expert in psychology or group dynamics, he or she can use group exercises to bind managers and subordinates into effective work teams. The basic processes to improve group interactions are feedback and disclosure. Through feedback a participant describes the effect of another's behavior on herself or himself while acknowledging the other's right to change behavior or

resist change and the possibility that her or his perceptions of the other's behavior may be unique. Disclosure is the process of revealing information about oneself to another.

Through T-group (training group) experiences, workers can learn when and how to provide feedback to decrease others' blind spots. The most desirable feedback contains information that is minimally distorted, consistent, nonevaluative, directly verifiable by oneself and the other, and preserves the recipient's defenses. Feedback is most likely to be of this type when it emphasizes the here and now, is couched in descriptive rather than evaluative terms, emphasizes behavior rather than attitudes, and

RESEARCH BRIEF

Nurse-Patient Interactive Styles

Theory: Orem's Self-Care Theory

Purpose: Assess the difference between traditional provider-patient interactions and negotiation provider-patient interactions within a simulated clinical environment.

Sample: Eighty-four volunteer undergraduate nursing students, randomly assigned to one of three treatment groups: 26 to traditional approach group; 30 to partial negotiation group, 28 to active negotiation group.

Method: Each subject played the role of a patient presenting to student health service with a one-day history of sore throat. Each subject was seen by a graduate nurse student who played the role of nurse practitioner. Each "nurse practitioner" enacted one of five scripts. For scripts portraying traditional and partial negotiation approaches, the treatment plan was predetermined: either (1) administration of penicillin; or (2) no medication until results of throat culture indicated need for medication. In the script portraying an active negotiation approach, the treatment decision was not predetermined but evolved through a process of data gathering, exploration of patient concerns, discussion of

treatment options, and interactive practitioner-patient decision making. Following each role-play, subjects completed a Likert-type questionnaire to indicate satisfaction with care, intent to comply with treatment plan, perception of power and control over care process, and perception of participation in provider-patient interaction.

Results: The subjects in the active negotiation group perceived greater control over treatment decisions than those in the traditional or partial negotiation groups. The active negotiation approach took twice as much time as traditional and partial negotiation approach (means = 10.14, 5.77, 5.17 minutes, respectively).

Application: In other studies, patients' feelings of power and control over treatment decisions were associated with compliance with treatment and satisfaction with care. To optimize care outcomes and market nursing services, managers might teach staff nurses to use an active negotiation approach in planning care—especially in those agencies where nursing is based on Orem's Self-Care Theory.

provides support for the other's experimental use of new behavior. Disclosure is most helpful when it is appropriately timed, focuses on present rather than past, and is appropriate to the situation in character and amount.

Feedback and self-disclosure are used in a T group, because members' interactions create tensions that are best resolved through ventilating feelings. Studies show that effective T groups are heterogeneous from the standpoint of members' personality characteristics. As group members interact, their different role expectations must be resolved for group learning to occur. Therefore, a major topic for T-group discussion should be the definition of member roles. The organization-development consultant's role is to help group members achieve syntality, guide the group in identifying goals, assist the group in establishing interaction rules, and encourage members' interdependence and autonomy. Under direction by a skilled facilitator, a work group can achieve enough cohesiveness to achieve agency goals while maximizing individuals' work satisfaction.

SUMMARY

A health agency's most valuable resource is its professional staff. The ability of nursing employees can be enhanced and agency effectiveness increased by implementing well-planned staff-development programs for selected employee categories. By expanding an employee's knowledge and skills, staff-development activities can increase her or his present job effectiveness and prepare the individual for advancement to more demanding responsibility. Such occupational upgrading generates employee good will and provides the agency with a future pool of informed and capable applicants for managerial positions.

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V

LEADING

Leadership

Leadership is getting people to do what they don't want to do and liking it.

HARRY TRUMAN

OBJECTIVES

After reading this chapter, you should be able to:

1. Contrast the motivations of a leader with those of a manager.
 2. Contrast the methods used by a leader and manager to secure subordinates' compliance with agency goals.
 3. Explain the double bind in which managers are caught because of their position in the organizational hierarchy.
 4. Enumerate three occupational hazards for staff nurses that can be minimized or eliminated by appropriate managerial interventions.
-

Management is the process of getting work done through others. To do this, a manager must move those others over obstacles, around resistance, and through problems toward agency goals. Nurse managers at every hierarchical level are expected to lead subordinates toward institutional objectives as efficiently as possible.

The verb to lead is defined in several ways: to guide, to run in a specific direction, to direct, to go at the head of, to be first, to open play, to tend toward a definite result. All these actions

are expected of a nurse leader. A nurse manager leads subsidiary employees by clarifying the path toward agency goals and rewarding employees' efforts to reach those goals.

An effective leader is a catalyst who facilitates effective interactions among manpower, material, and time. A skillful leader is a synergist who coordinates the efforts of multiple workers with diverse skills. Leadership is a social relationship in which one party has a greater ability to influence the behavior of another than to be influenced by him or her. Thus, leadership is

based on a power differential between interacting persons. Leadership is needed in any cooperative enterprise to align employees in support of goals, to spark group interaction, to blend efforts of diverse specialists.

In the past, some experts claimed that leaders could have little impact on an organization's performance, because they were constrained by the same situational factors that restricted employees in lower levels of the organization (Pfeffer and Salancik, 1978). However, a study by Thomas (1988) shows that, despite constraints, the character of leadership does account for performance variations within an organization. Hence, it behooves nurse managers at every organization level to select leadership styles and methods that suit work force requirements.

LEADERSHIP ACTIVITIES

Leadership includes a variety of activities: directing (pointing the way); supervising (overseeing action); and coordinating (synthesizing efforts of individuals). Of these, directing is the most difficult. To direct a subordinate through a specified course of action, a leader must be thoroughly familiar with the desired action, understand the subordinate's abilities, and appreciate the human and materiel costs of following the prescribed course. Directing another's work is a risk-laden transaction, because it casts the manager in an authoritarian (parental) role, against which subordinates are apt to rebel. Overseeing is a less difficult leadership activity, because the manager's responsibility for maximizing productivity stimulates her or his interest in the quantity and quality of subordinates' work contributions. Coordination is the most critical leadership activity: Unless employees' efforts are unified and fixed on agency goals, diverse specialists tend to work at cross purposes.

LEADERSHIP ROLES

Burns (1978) differentiated between transformational (visionary) and transactional (practical) types of leadership. A transformational leader envisions an ideal future state, together

with a possible route to that state; then communicates this vision to followers in a fashion that enables them to achieve full potential in pursuit of the envisioned ideal (McDaniel and Wolf, 1992). A transactional leader is a pragmatist who effectively manages day-to-day operations by clarifying preset goals, providing necessary work resources, and regulating employee effort through established policies. Unlike a transformational leader, a transactional leader is incapable of visions or inspirational messages. Bass (1985) claims that some characteristics of both transformational and transactional leadership are needed to entice and impel subordinates toward long-range organizational goals.

For the sake of clarity, different terms should be used in referring to managers at different hierarchical levels. A top-level manager, like the vice-president of nursing, is an executive. A manager in the next-to-top hierarchical level is an administrator. A manager in the middle of organization structure is a divisional director or supervisor. The first-level manager of a nursing unit is a head nurse or patient care manager. Managers at each level direct, oversee, and coordinate subordinates' efforts, but upper- and lower-level managers use different methods for each function. An executive whose immediate subordinates are experienced professional managers should give subordinates only general direction; supervise by reviewing statistical indices of production; and coordinate by issuing policy statements, holding staff meetings, and circulating position papers. A head nurse should give explicit, detailed direction to caregivers; work alongside subordinates to oversee technical and interpersonal aspects of patient care; and coordinate staff efforts through ward rounds, team meetings, and shift reports (Fig. 19-1).

A nurse manager's superiors and subordinates have different expectations of her or his role behaviors. From an executive's or administrator's viewpoint, a good manager produces maximum work output with minimal person-

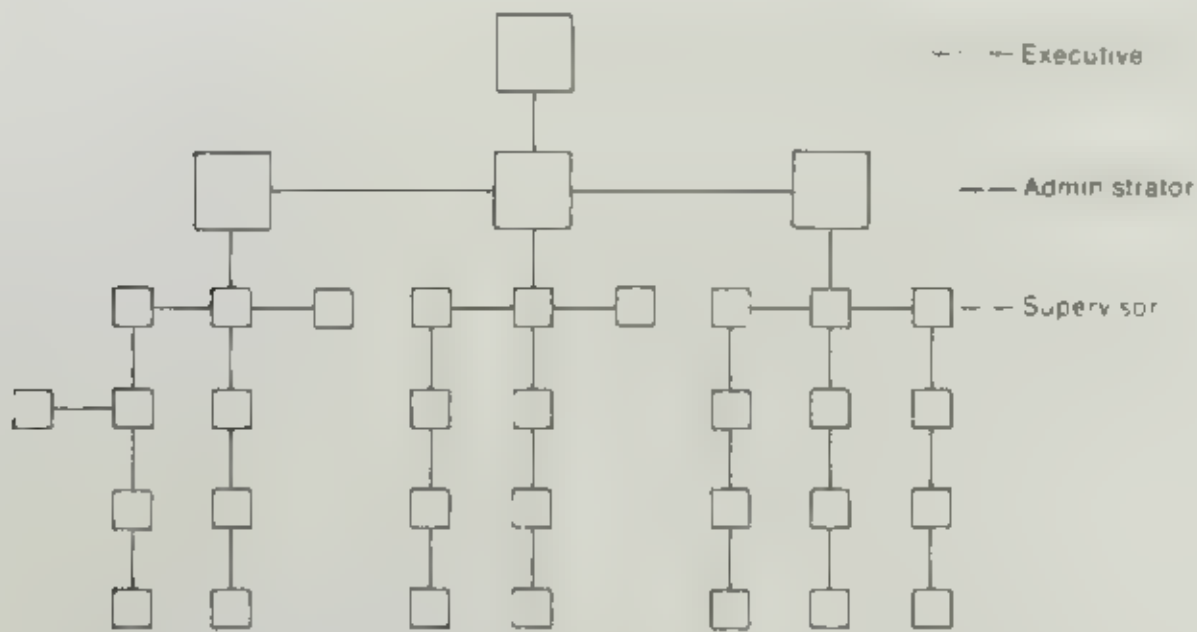


Figure 19-1 Managers at various levels of the nursing organization structure

nel and materiel expenditures. From a staff nurse's viewpoint, a good manager has enough clout and sensitivity to provide a safe, predictable, supportive work environment for employees.

The first-level manager in nursing supervises direct providers of patient care and is the manager closest to agency purpose and agency clients. First-level nurse managers are caught between the conflicting expectations of administrators and caregivers; so they experience continuing role conflict, which leads to job dissatisfaction. The head nurses represent administration to staff nurses and aides but are viewed as part of the clinical work force by executives and administrators. This biculturalism causes the head nurse or patient care manager to move uneasily between labor and management, representing first one viewpoint, then the other during the course of daily events. Because the first-level manager is familiar with the goals, attitudes, and problems of workers and administrators, she or he is a vital communication link between labor and management. Persons who are appointed to head nurse or patient care manager positions should be assertive and verbally facile, because they are relied on to convey in-

formation and opinion between potentially antagonistic groups.

Nursing personnel have an increased need for leadership during periods of rapid organization change. Gilmore (1990) claims that the purpose of leadership during change is to manage uncertainty and create safe conditions for employees. Accordingly, the most logical site for leadership enactment is the agency's boundaries with surroundings. Here, leadership can most easily buffer the effects of environmental uncertainty and stress to prepare a calm, comfortable, work setting for caregivers. In Gilmore's view, nursing leadership should be directed less toward individual workers than toward spaces between work roles. An effective leader will unite disjointed efforts of parallel workers by coalescing unit personnel into a tightly knit, mutually supportive work team and create a protective, yet stimulating, climate for teamwork.

RELATION OF LEADERSHIP TO OTHER MANAGEMENT FUNCTIONS

For some time- and space-limited projects, such as trial use of 10-hour schedule on a single nursing unit, a nurse manager might plan, or-

ganize, implement, and control the entire project from start to finish. In such case, the planning, organizing, and staffing functions logically precede the leading function. When extensive knowledge of clinical content and work flow patterns is needed for project implementation, on-the-scene control should be provided by a person with the authority to modify the implementation plan. Therefore, a single manager should plan, organize, execute, and evaluate the project. For more complex projects, like change from primary nursing to nursing case management, the nurse executive may be responsible for planning and controlling, nurse administrators may be responsible for organizing, and head nurses or patient care managers may be responsible for staffing and coaching for the project.

When more than one manager spearhead a program in which caregivers participate in setting goals and planning work, the functions of planning, organizing, and leading may occur simultaneously. For example, in shifting from decentralized to centralized staffing, divisional nursing directors may develop procedures for procuring and distributing personnel, while medical-surgical head nurses develop time schedules and assignment patterns to ensure an optimum staffing mix for the medical and surgical intensive care units. Simultaneous leadership by several managers can reduce start-up time for a new project but will increase the need for coordination by the nurse executive or nurse administrator. If a divisional director invites staff nurses to develop policies for 10-hour and 12-hour work schedules, the director's leadership activities and the staff nurses' planning activities will occur simultaneously. Again, multilevel planning requires coordination by a higher-level manager.

THE FIRST-LEVEL MANAGER

The performance of a nursing first-level manager, the head nurse or patient care manager, is the most critical index of nursing leadership (Everson-Bates, 1992). First-level nurse managers

have bidirectional responsibility. Their weightiest responsibility is to ensure safe, effective care for a group of patients so large that they can fulfill this responsibility only by working through others. To ensure high-quality patient care, they must direct staff nurses to perform care tasks in accord with agency policies and standards. Their second responsibility is to protect subordinates' physical, emotional, and occupational welfare. To fulfill these responsibilities, they must possess considerable knowledge and skill. To protect patients, they must have knowledge of ethics, law, psychology, and sociology, as well as biological science and the healing arts. To protect subordinates, they must have knowledge of law, economics, labor relations, communication, and counseling.

The leadership behavior of clinical nursing managers is highly pragmatic. With little regard for theoretical restrictions, head nurses or patient care coordinators adjust, adapt, and combine classic leadership methods to optimize patient welfare and staff development. Not only must the manager link labor and management personnel into a workable team, but also they must balance change and fixity so as to promote agency progress while capitalizing on the organization's past accomplishments. In one sense, the first-level manager's duty is to maintain the status quo. In an established health agency, systems have been refined for admitting, diagnosing, treating, and caring for patients; for hiring, orienting, assigning, and developing employees; for ordering, allocating, and maintaining equipment; for purchasing, distributing, and storing supplies. The manager's duty is to facilitate adherence to functional operating systems, provide back-up services during system breakdown, and inform administrators how to correct dysfunctional systems.

Even when patient care, staffing, equipment, and supply systems function smoothly, caregivers need a clinical manager to help them to solve unforeseen tactical problems in patient-care delivery. Scarcity of time and personnel, in the face of clinical emergencies, requires contin-

uous reordering of work priorities, which usually causes changes in assignment for some employees. It may be necessary for the manager to assume full responsibility for reordering priorities to prevent conflict among workers advantaged and disadvantaged by the change. There are several ways to address patients' care needs and each has far-reaching effects, so the method for pursuing each nursing objective should be thoughtfully selected. Inexperienced nurses are sometimes unable to select the care measure with the greatest life-saving, limb-strengthening, or morale-raising potential for a particular patient. Inexperienced nurses are sometimes unable to select the problem solution that offers the most rapid and reliable results with the fewest risks. A seasoned nurse with leadership experience can quickly determine work priorities and methods for staff nurses during an emergency. When there is time for a democratic approach, he or she can explain underlying principles and guide staff nurses to determine priorities and methods for themselves through inductive and deductive reasoning.

To maintain the institutional status quo, a clinical manager must be able to manage minor change creatively. Planners cannot be expected to foresee all the ramifications of a projected patient care system, so an otherwise effective program design may fail during trial use because of the lack of a feedback loop or decision point. For example, representatives of hospital administration, surgical staff, nursing administration, financial control, outpatient services, and operating room staff collaborated in designing a preadmission assessment and ambulatory surgical program in a pediatric clinic. On the day of program implementation, the operating room supervisor was notified at 8:00 A.M. that a herniorrhaphy operation scheduled for that time was canceled because the patient's preadmission laboratory tests revealed sickle cell disease. To maximize operating room utilization and optimize care for the patient whose surgery was canceled, the operating room supervisor would have to reassign released scrub

and circulating nurses, notify surgeons and anesthesiologists that an additional operating room was available, juggle the operating schedule for a later date to reschedule the canceled herniorrhaphy procedure, and recommend policy for review of all preadmission laboratory test data on the day preceding an ambulatory surgical procedure.

A major responsibility of the nurse manager is nonprogrammed decision making, because a manager's long-range decisions commit valuable agency resources for a long time into the future. Consequently, a nurse manager's nonprogrammed decisions should be data based, not opinion based. Many health agencies have computerized MISs that deliver a wealth of patient-related and employee-related data to nurse managers on a regular basis. The manager should use aggregated data about patient diagnoses, patient classification, patient-acuity levels, treatment measures, nursing needs, infection control, length of stay, and discharge destination to decide on the type and amount of nursing staff needed and on the character of orientation and in-service education to be given them. Aggregated data about employees' age, sex, education, length of service, attendance, and performance quality should be consulted when designing recruitment activities, educational efforts, and disciplinary policies that will enhance employee productivity. The first-level nurse manager needs training in data gathering, data analysis, and computer use to make the best use of computerized MIS reports. For some managers, such preparation is available as on-the-job training by agency experts. For others, junior or senior college courses may be needed (Barhyte and Christman, 1987).

LEADERSHIP STYLES

Style is a distinctive or characteristic manner of performance. Follett (1940) defined style as, "the exclusive privilege of the expert. With style the end is attained without side issues." Style implies an elegance and economy of effort to be sought by every professional manager.

Research has identified four styles of leadership in managers from various fields: autocratic, democratic, participative, and laissez-faire.

In the autocratic style of leadership a task-oriented leader uses positional and personal power in an authoritarian manner, retaining responsibility for all goal setting and decision making and motivating subordinates through praise, blame, and reward.

In the democratic style of leadership the leader values the individual characteristics and abilities of each subordinate. The democratic leader uses personal and positional power and cooperative decision methods to draw out ideas from employees and motivate them to set their own work goals, develop their own plans, control their own practice (Glendon and Ulrich, 1992).

The participative style of leadership is a compromise between authoritarian and democratic styles. In participative leadership the manager presents her or his analysis of problems and proposals for action to employees, inviting their criticism and comments. Having weighed the subordinates' responses, the manager makes final decisions about the group's future activities.

In the laissez-faire, or "let alone," style of leadership the appointed manager abdicates leadership responsibilities, leaving workers without direction, supervision, or coordination and allows them to plan, execute, and evaluate the work in any way they like.

MEMO CAPSULE

Leadership Style

- Autocratic: Authoritarian, demanding, controlling
- Democratic: Supportive, relational, enabling
- Participative: Mixture of enabling and controlling
- Laissez-faire: Uninvolved, disinterested, withdrawn

The clarity of power and authority relationships in autocratic leadership facilitates rapid decisions and efficient task organization. Therefore, authoritarian style is effective in a crisis, when the rapid mobilization of effort is essential to the general welfare. Generally, greater job pressure and greater subordinate need for information make workers more accepting of authoritarian leadership. However, even when stress and the need for task information are high (as in a critical care unit), authoritarian leadership may provoke aggression in employees with low self-esteem. Furthermore, authoritarian leadership encourages dependence in subordinates by causing fear of criticism, disfavor, and financial loss, which are concerns that the leader can accentuate or relieve at will by manipulating praise and blame.

Studies by Lewin, Lippert, and White showed that groups produce a greater amount of work under autocratic leadership but better quality work under democratic leadership (Argyris, 1973). Studies by Vroom (1964) showed that participative leadership has the most positive effects on employees with a high need for independence and strong authoritarian values. Participative leadership style is preferred when employee planning is needed to overcome resistance but employees have insufficient skill in group dynamics to respond to democratic leadership. As health agencies increase in complexity and caregivers become more specialized, managers must forgo authoritarian for participative leadership, because no leader can know enough about job tasks and skills of various nurse specialists to make decisions for the total work group (Koerner and Bunkers, 1992). Democratic leadership encourages the expression of diverse viewpoints, but the exploration of diverse viewpoints encourages overlong discussion of trivial issues, with serious waste of time. Therefore, democratic leadership may improve employee morale at the price of decreased productivity.

Thirty years ago, research was conducted to

determine which leadership style would produce the greatest work output and job satisfaction. More recent studies indicate that each leadership style is effective in certain types of situations and ineffective in others (Tannenbaum and Schmit, 1973). Factors that determine which leadership style is best for a particular situation include task complexity; time available; work group size; communication patterns; employees' educational level and needs for achievement, affiliation, and control; and manager's training for leadership. A nurse manager's leadership style has been shown to influence subordinates' morale. A study of neonatal intensive care nurses revealed higher burnout scores for nurses in units where the head nurse's leadership style was characterized by high structure and low consideration than in units where the head nurse's style was characterized by high structure, high consideration, or low structure, high consideration (Duxbury et al., 1984).

CONTINGENCY OR SITUATION THEORY OF LEADERSHIP

The contingency, or situation, theory of leadership replaced older "trait" and "style" theories. According to contingency theory, the organizational culture, work situation, and work group are in constant flux, so that the most effective leader for each situation is the person whose personality and style best satisfy employees' needs for structure and consideration. According to the contingency theory, a leader no more controls the work situation than he or she is controlled by it. The leader, like subordinates, is subservient to the task, and goal achievement is the only justification for leadership. Although the leader is in a position of power, she or he is at the mercy of subordinates. The leader can achieve personal work goals only if subordinates acquiesce to her or his efforts to control their behavior.

According to contingency theory, leadership should shift from one person to another during project implementation. Although no trait or

leadership style is effective in all situations, there are guidelines for adapting leadership activities to situational features. To lead effectively, a person must be an accepted member of the work group, must be seen as superior to other members in some significant attribute, and must occupy a powerful position in the group's force field. Therefore, a nurse manager's clinical background, ideals, and professional interests should resemble those of subordinates. The manager should demonstrate skill in nursing, management, communication, and politicking and should represent a subject area or functional emphasis that confers power and prestige on practitioners. In a hospital or clinic planning to develop a home care program, a respected community health nurse might be the most effective manager for the proposed outreach program. In an agency planning to combine the emergency room, coronary care unit, dialysis unit, surgical intensive care unit, postanesthetic recovery unit, and pediatric intensive care unit into a single department of emergency and intensive care, a certified medical-surgical clinical specialist might be the most effective leader for the new department. In a health agency used as clinical practice laboratory for students of several health disciplines, clinical teaching experience might be as important as managerial experience for the position of divisional nurse director. In a health agency with a predominately Black or Hispanic patient population and work force, a nurse from either ethnic group might be a more effective division director or vice-president of nursing than a caucasian nurse with similar employment background.

In adapting leadership to situational peculiarities and employees' needs, a manager should vary her or his methods of directing, supervising, and coordinating, depending on whether tasks are ambiguous or clear-cut, workers need structure or independence, employees are team players or individualistic.

According to the contingency theory (Fiedler, 1977), work group success requires a proper

match between the manager's leadership style and the amount of the manager's control over the work situation. Fiedler claims that a manager's leadership style is either relationship motivated or task motivated. He claims that the manager's control over the work situation is greatest when leader-member relations are favorable, the task is highly structured, and the manager has a strong position power. Studies suggest that task-motivated leaders are most successful in high-control or low-control work situations and that relationship-motivated leaders are most successful in moderate-control work situations. Fiedler claims that it is difficult for a manager to alter his or her basic leadership style. Each manager should identify her or his basic leadership style. When managers find themselves in a situation unsuited to that style, they should either leave the job or alter the work situation to create conditions in which their leadership style is more effective. For example, a manager can increase or decrease the quality of leader-member relations by spending more time or less time in informal interactions with subordinates, transferring selected workers into or out of the group, or increasing or decreasing time spent in coaching. A manager can increase or decrease the amount of task structure by providing additional job training, by assigning unfamiliar tasks, requesting more specific or more general directions from top executives, or developing more specific or more general work procedures for subordinates. Managers can increase their position power by requiring that all information to and from work group members be channeled through them, by withholding selected information from subordinates, by acquiring expertise in all tasks performed by subordinates. They can decrease position power by delegating decisions to subordinates, encouraging subordinates to communicate directly with top executives, and socializing freely with subordinates. However, in engineering the work setting to achieve a better match with their own leadership style, managers may make the situation less comfortable for selected subordi-

nates, because employees differ in their preferences for task structure and leader-member relations.

DIRECTION

A leader uses assignments, orders, policies, procedures, rules, regulations, standards, opinions, suggestions, and questions to direct subordinates' behavior. Autocratic leaders prefer—and dependent workers require—an authoritarian type of direction. Authoritarian methods are well suited to emergencies and some of the highly programmed tasks that abound in health care agencies. Democratic leaders with high-level group dynamics skill prefer—and independent professional employees require—less detailed direction. Less rigid, more permissive direction is well suited for complex undertakings by a heterogeneous, highly specialized work force, like those encountered in intensive care units.

Orders

Policies, procedures, standards, and assignments are discussed in Sections II and IV. Orders are a helpful device in leading others to desired behavior. An order is an oral or written command by an organizational superior that requires the subordinate to act or refrain from acting in a particular fashion. A leader's power to command the behavior of others derives from the authority attached to the leader's position and from the subordinates' acceptance of the manager's leadership role. A leader's orders are enforceable because of the authority given to supervisory personnel to issue orders and apply sanctions for a subordinate's failure to comply.

When employees require a high degree of structure, the leader's span of control is broad, or trust is lacking between leader and subordinate, the manager should issue orders in written form. In an emergency, lack of time may necessitate oral orders, but a manager should repeat oral emergency orders frequently to prevent errors from stress and confusion. When leader and subordinates know one another well

and have had time to build a high degree of trust, when professional workers are capable of self-direction and the group's task is highly complex, orders should be given orally to allow for some give and take between leader and subordinates as work goals and methods are clarified.

When the group's task is clear-cut, an oral or written order should be worded specifically to prevent misunderstanding and save time. When the task is ambiguous and the leader cannot foresee all the circumstances related to task completion, an oral or written order should be worded in general terms, so that employees will feel free to adjust their behavior to accommodate unexpected difficulties.

Although the manager is weighing task complexity, worker sophistication, and personal inclination to decide whether an oral or written order is needed, the leader should realize that some persons rely on visual sources of information, others on aural perceptions, and still others equally on the two types of stimuli. Written commands are most effective with visually oriented workers, oral orders with aurally oriented workers.

All orders should be issued in simple, direct language. It is helpful to prepare for an oral order by writing the command, as that activity forces the leader to review the order's purpose, select the language needed to clarify behavior expectations, and predict subordinates' reaction to the order. Many words have more than one definitive or associative meaning. Emotions color a person's interpretation of language signals. Employees differ markedly in verbal facility. For all these reasons a manager's orders are often misinterpreted, and performance problems result.

An ill-planned order from a health care manager may have serious consequences, because a poorly written directive exposes its author to public criticism or ridicule. Furthermore, it is impossible to predict all outcomes likely to result from an employee's change in behavior. Changes resulting from a manager's order are difficult to reverse, so that some managers are

reluctant to issue orders in written form. A leader should issue as few orders as possible to avoid overcontrolling subordinates. However, too few managerial orders during a period of crisis predisposes to employee confusion and organizational chaos. By issuing oral orders when written orders are called for, an overcautious leader creates anxiety in subordinates. When a manager fails to clearly communicate expectations for employees' behavior, workers look for hidden significance in the manager's every word, gesture, and facial expression, hoping to find some clue to the leader's attitudes and intentions.

Effective group work requires the exchange of information between leader and subordinates. Message clarity can be improved by decreasing interference during transmission and increasing the accuracy of reception. To increase message clarity the leader should state orders in simple, straightforward fashion, using concrete terms. The following guidelines should be followed in verbalizing work orders.

1. Indicate by name or title the individual(s) to whom the order is addressed.
2. Specify the date of issue and expected date of compliance.
3. Use simple sentences with an action verb to describe the activity to be performed by the targeted employee(s).
4. Specify the expected activity in terms of observable behavior.
5. Set clear time limits for task completion.
6. Quantify the work to be accomplished in measurable units.
7. Provide the standards against which performance will be evaluated.
8. Include the name and title of the person issuing the order and a phone number where the person can be contacted if the order needs clarification.

In issuing written orders, managers usually err by giving too little information. Generally, a manager has spent considerable time in data gathering and analysis before issuing an order

to subordinates. Therefore, the manager's understanding of the issue will exceed that of subordinates. In composing a work order, a manager should not hesitate to state the obvious. What seems obvious to the manager may be troublesomely obscure to subordinates. Of the following orders, the second would be more effective, because the reason for an important procedure step is explained.

1. "To summon the Cardiopulmonary Resuscitation Team, dial 1000 and give the operator the following information: your name and unit number, and name and bed number of the patient suffering an arrest."
2. "To summon the Cardiopulmonary Resuscitation Team, dial 1000 and give the operator the following information: your name and unit number, and the name and location of the patient suffering an arrest. The patient's room number as well as name should be reported, so that the Resuscitation Team can locate the patient as promptly as possible."

Another principle to be followed in issuing orders is the fact that an employee's acceptance of a manager's order is inversely related to the organizational distance between order sender and receiver. Orders are most effective when issued directly from a leader to the intended subordinate, rather than indirectly through an intermediary.

Issuance of an order implies a status difference between leader and subordinate, which many employees resent. To minimize interpersonal friction and focus attention on the task to be accomplished, orders should be depersonalized. "Mr. Howell has been scheduled for an emergency appendectomy. Please take him to the Operating Room right away." is a less personal message than "Do me a favor, will you? Hang this blood for me." Similarly, "Each nurse must work an extra weekend in March to compensate for vacant positions." is less personal than "I need someone to work next weekend. Can I count on you?"

Too numerous orders and orders given in a peremptory tone of voice provoke subordinates' resentment. It is difficult for an employee to express negative feelings to a superior, so that resentment about authoritarian orders usually simmers for a time, then erupts explosively, interrupting other interpersonal transactions. To complete a difficult project in limited time, an insecure leader may pepper reluctant staff members with numerous orders and frequent reminders. Such an order blitz escalates employee resistance, because workers feel exploited when subjected to repeated commands to which they have no rejoinder.

Giving and receiving orders create interpersonal friction. Follett (1940) suggests that a leader should avoid giving orders to subordinates. Instead, he or she should unify all workers in studying the work situation or problem. In this way, workers can discover the "law of the situation," which all would then be expected to follow. For example, staffing problems develop when sick nurses fail to notify their unit manager of intended absence in time for the manager to obtain overtime or registry nurses. The manager could solve this problem by decreeing that nurses will not be paid for sick time unless they notify the manager of impending absence at least one hour before a scheduled work shift. However, most nurses would resent such a rule, seeing sick-pay restriction as withholding earned benefits. The problem could be resolved and ill will avoided by allowing work group members to solve the problem for themselves. When the staff "work short" because a nurse calls in sick at the last minute and a replacement worker cannot be found, remaining staff members are overburdened. All unit employees are disadvantaged by employee absence, late notification, inability to find replacement workers, and financial sanctions against absenteeism. Therefore, employees as a group would be strongly motivated to discover the "law of the situation" or the solution offering maximum advantage and least loss to the greatest number of workers.

SUPERVISION (OVERSEEING)

Suprvision, or overseeing, is the second of three major leadership behaviors. Supervising includes inspecting another's work, evaluating her or his performance, and approving or correcting performance. Supervision creates anxiety for overseer and overseen. Clearly, a manager's dissatisfaction with an employee's performance can jeopardize job security, so that employees fear close observation by a superior. A manager's awareness of personal performance deficits makes it difficult to scrutinize a subordinate's failures lest these result from poor management.

Despite employees' need for quality control by a clinical leader, supervision need not be restrictive. Good supervision is facilitative, because a knowledgeable overseer inspects work in progress and can remedy inadequate performance before serious consequences develop.

The intensity of supervision, like the force of direction, should match situational requirements, employees' needs, and manager's leadership skills. Supervision must be appropriate in type and intensity for work group members to interact comfortably. When it is inadequate, employees' activities depart dangerously from standards. When it is too intense, employee initiative and creativity are squelched. Generally, ancillary personnel and technical nurses need closer supervision than professional nurses, and more intensive patient care needs and greater patient risk from care failures dictate a need for more intense supervision. On the other hand, a manager who inspires staff nurses to high-practice standards need not supervise technical or professional subordinates as closely as a manager whose followers have little pride in their work.

Intensity of supervision should be fitted to the individual employee's personality quirks. Employees who are other-directed need close and continuous supervision by an authority figure and feel abandoned or rejected when supervised indirectly. Other-directed employees are likely to become demoralized when a man-

ager's broad span of control prevents close supervision. Employees who have suffered through earlier contact with an authoritarian manager usually feel harassed by continuous, direct supervision. Performance evaluation of this latter group is difficult. Sensing the employee's aversion to supervision, a manager is tempted to base evaluation on few observations of the employee's performance. Anxiety caused by close inspection causes the employee to perform poorly. Quick, first impressions of performance are more often wrong than right, so that an employee who avoids supervision often receives unduly negative performance evaluation.

An employee's need for supervision changes during the course of her or his career. Human beings are continuously developing and have constantly changing needs for challenge, support, and direction. A newly graduated nurse whose inexperience necessitates close supervision during the first year of practice will need less direct supervision during the second year in the same position to accommodate the nurse's growing need for assertiveness and self-reliance.

Intensity of supervision should also depend on manager-caregiver ratio. Administrators who design a nursing department's formal structure should establish an appropriate span of control for each manager. As a rule of thumb, a manager can effectively supervise a large number of subordinates when they are confined in a small area, perform similar job tasks, and are fairly well educated. The same manager can effectively supervise fewer subordinates when work cannot be programmed in advance, employees are highly specialized, and workers must interact frequently.

The purpose of supervision is to inspect, evaluate, and improve worker performance. Therefore, criteria are needed for judging the quality of work processes and outcomes. The official job description and associated performance standards provide such evaluation criteria. The following performance elements should be appraised: quantity of work output; quality of

output, time use; conservation of resources; assistance to coworkers; and support of administrators

Supervision as Coaching

The most effective supervision is based on the philosophy and techniques of sports coaching. Coaches claim that group goals should supersede the needs and desires of individual team members. Coaches allow individual team members who excel in team play to be given recognition and acclaim only when these stars attribute their success to support from other team members. Coaches develop strategic game plans, with offensive and defensive tactics and a variety of signals through which the leader mobilizes team effort to move against opponents. Coaches teach that technical skills wither from disuse and flourish with repeated practice, and they provide instruction and supervised practice to remedy bad habits and skill deficits. They "overtrain" players by imposing improvement exercises beyond the point of adequate performance. They use persuasion, exhortation, and judicious use of reward and punishment to move players toward increasingly higher levels of performance. They deplore false confidence, complacency, and defeatism as obstacles to team success. They discipline or remove any player who disregards training rules and practice regulations or consistently falls short of expected performance standards.

The coaching or mentoring approach to supervision is effective, because it meets employees' needs for structure and support (Jackson, 1991). Research shows that a leader's behavior is satisfying and acceptable to subordinates if it satisfies their immediate needs or increases their likelihood of reaching long-term goals.

Supervision as Control

Supervision is a control measure as well as a leadership technique. According to Allen's principle, the greatest potential for control exists at the point where action occurs (Morrisey, 1970). For effective quality control and im-

provement, supervision of nursing personnel should take place in the patient care environment. Drucker (1967) holds that "to go oneself and look is the only reliable feedback." Therefore, a nurse manager obtains the most reliable feedback about the efficacy of organization structure, job descriptions, performance standards, hiring efforts, placement decisions, assignment methods, and training techniques by observing nursing personnel during patient care. However, finesse is needed to supervise personnel in the patient's presence in a manner that does not threaten caregivers and jeopardize nurse-patient relationships.

Supervisory Techniques

One method of clinical supervision is for the nurse manager to ask a subordinate's permission to work alongside her or him for a day or two. Depending on the supervisor's familiarity with the employee's work and the latter's length of service, the supervisor may simply observe the nurse taking care of one or more patients. If the supervisor finds the bystander role awkward or the nurse needs assistance with care measures, the supervisor may help the nurse to bathe, dress, move, feed, or otherwise care for patients; may demonstrate selected care procedures; and may suggest methods for resolving troublesome care problems.

If the supervisor concludes that the employee requires correction or instruction, these discussions should be held privately to preserve the patient's trust in the caregiver and to avoid humiliating the nurse.

The supervisor can increase the effectiveness of her or his suggestions and corrections through tactful wording. By preserving the worker's self-esteem, the manager can decrease his or her resistance to change. Phrases such as "Have you tried doing it this way?" and "I've found it helpful to hold it like this" or "Betty taught me an easier way to do that; let me show you" are more persuasive than "Not like that!", "Not so fast!", "Be careful!", or "Who taught you to do it that way?"

Another method of supervising subordinates is to spot-check selected activities at regular intervals. A manager might spot-check the quality of discharge charting by reviewing records of all patients discharged during a specified interval; the appropriateness of patient information conveyed at change-of-shift report by attending shift rounds and checking patient records on several successive days; the accuracy of incident reports by comparing their content with information documented in patient records; the accuracy of intake-output records and labeling of intravenous fluid containers and tubing by examining patient charts and intravenous fluid set-ups during patient rounds; employees' promptness in returning from meals by stationing herself or himself at the unit entrance during a meal period and recording the time of each employee's departure and arrival; employees' hand-washing habits by stationing herself or himself by the utility sink for an hour or two during morning or evening care hours; employees' use of aseptic technique by accompanying each staff nurse during one dressing change, one tracheostomy care procedure, or emptying of urine receptacles at one shift change.

As informative as it is to "go and see for oneself" selected aspects of a staff nurse's performance, a nurse manager cannot effectively oversee a professional nurse's total performance by direct observation. Professional nurses, like physicians, lawyers, teachers, and engineers, are knowledge workers. The primary function of a knowledge worker is to think, so that a manager cannot determine whether a knowledge worker is performing well simply by observing her or his overt behavior. In supervising a professional nurse, the first-level manager should ask questions to discern what data the nurse seeks about each patient, what conclusions she or he derives from data, how she or he constructs patient care objectives, and how she or he evaluates a patient's progress toward care goals. Although many of a professional nurse's assessment, planning, and evaluation activities are overt, data analysis, decision making, and creative thinking

are not. Questioning is needed to reveal a nurse's cognitive behavior.

Of course, questioning, like direct observation, can be overused. Frequent cross-examination by an authoritarian manager causes caregivers to become overconcerned with petty details and trivial decisions.

Correcting Performance

Both technical and professional workers need novelty and opportunities to experiment in their work. Therefore, the manager should adjust supervisory methods to suit each employee's developmental needs. An aide whose assignment and personality make direct observation the preferred method for supervision should be approached indirectly on occasion, to obtain a different perspective of her or his performance. An aide might be assigned to write a case study for presentation to the manager or peer workers, in order for the manager to investigate the depth of the aide's clinical understanding and cognitive approach to problem solving. Questions and suggestions offered by peers during the aide's case study presentation might more effectively upgrade performance than direction from the head nurse during care delivery.

Inevitably, a nurse manager will feel more friendly toward certain subordinates than others. A manager is likely to demonstrate greater sensitivity and consideration when criticizing a favored subordinate than when correcting one less favored. Also, observation, criticism, and correction create resentment in some employees, who then retaliate by maligning the manager, pouting, or exhibiting hostility. Most managers find it difficult to retain equanimity and objectivity in the face of repeated provocation and discourtesy from a subordinate. However, a conscientious manager will value institutional goals above personal comfort and accept the fact that subordinates are paid to perform assigned job tasks, not to enhance their manager's self-image through acquiescence, false enthusiasm, and flattery. To fulfill job expectations, an employee must know in advance

exactly what she or he is to do and what she or he is to refrain from doing. When a manager learns that a subordinate has not performed in accord with job description, job standards, agency policy, or legal regulations, the manager should immediately correct the individual's performance in a cool, matter-of-fact manner. The manager should determine whether the employee was instructed how to perform the task properly and whether she or he understood the instruction. If the employee lacks the needed knowledge or skill, she or he should be given appropriate instruction and allowed reasonable time to correct the targeted behavior before being reevaluated.

When repeated correction, instruction, and reminder fail to remedy inadequate performance, the manager should resort to confrontational techniques (Davidhizer and Bowen, 1988). In confrontation, the manager makes a bold, face-to-face presentation of facts and feelings, to force the employee to acknowledge the full weight and consequence of the performance failure and motivate her or him to immediate improvement. The professional socialization of nurses conditions them to be considerate of "difficult" persons, protective of anxious persons, and passive toward powerful persons. As a result, nurse managers are generally unwilling to confront adversaries directly. However, an employee who persistently denies performance problems is likely to lose her or his job and become increasingly unemployable, as poor references accumulate. Confronting an employee with irrefutable evidence of poor-quality work may jolt her or him to improve performance in time to salvage reputation and livelihood. For this reason, confrontation can be motivated by real concern for an employee's long-term welfare.

Morale is a state of mind, reflecting contentment, confidence, and optimism. High morale is contagious and increases employee initiative and motivation. Morale is elevated by success, lowered by failure. Correction by a superior is interpreted by many workers as evi-

dence of job failure. To avoid eroding employee morale by frequent correction, a manager may decide to ignore an employee's minor mistakes or convert them to learning opportunities. Most employees who have committed an error feel guilt and remorse concerning their lack of knowledge or persistence. Haranguing by a manager is not needed to correct an employee's behavior and may, instead, block the desired behavior change by destroying self-confidence. When an employee's performance is so poor that drastic action is called for, the manager should assume that hiring practices, placement decisions, orientation activities, or worker supervision may be at fault.

A manager may supervise numerous subordinates with different backgrounds, responsibilities, and length of service. To ensure that each employee's performance is inspected regularly and that supervisory time is distributed economically, a manager should schedule supervisory activities in advance. To avoid spending excessive time observing a few excellent or poor workers (those most apt to catch the manager's attention), a supervisor should preschedule herself or himself to supervise each staff member in turn, devoting equal time to each. If the manager's span of control is so broad that she or he cannot effectively supervise all subordinates, she or he should delegate responsibility for supervising selected workers to a lower-level manager in the same unit.

Dealing with Chemical Dependence

One of a nurse manager's most important responsibilities is the duty to identify chemical dependency in subordinates and to refer impaired employees for treatment and rehabilitation (Daniel, 1984). Approximately one in ten Americans is chemically dependent, and nurses' rate of dependency is 50 percent higher than that of nonnurses (Kabb, 1984). Research by Hutchinson (1986) suggests that the problem underlying nurses' chemical dependence is psychological or physical pain and that the degree of pain determines the speed of dependency de-

velopment. Hutchinson claims that the process of self-destruction through chemical dependence occurs in three stages: introduction to drugs or alcohol, commitment to use of a selected chemical, and compulsion to use the selected substance.

The stage of introduction is further subdivided into three phases: first experience with mind-altering chemicals; connecting drug and alcohol use to pain relief; and experimenting with a variety of chemicals to find the chemical of choice. The stage of commitment is also subdivided into three phases. The first phase is self-dialogue to deny the consequences of use. The second phase is disengaging from others and from one's conscience to avoid interference with chemical use. The third phase is routinizing use of the chemical, which includes lying, stealing, or forging to obtain necessary drug supply and conceal deviant behavior. In the stage of compulsion, drug craving is characterized by bizarre behavior, physical illness, and deliberate or unconscious self-destruction. Usually, a nurse manager becomes aware of a subordinate's chemical dependency when the individual is in the commitment stage.

To protect employees from the self-destructive effects of chemical dependency and to protect patients from abuse by impaired employees, a nurse manager must identify early signs of chemical dependence and refer impaired employees for treatment. Typical signs of chemical dependence are frequent absenteeism after a scheduled day off, excessive tardiness and early departure; emotional outbursts; rapid mood swings; drowsiness; slurred speech; failure to fulfill job responsibilities; frequent errors and accidents; and poor grooming (Stepter, 1982). If the foregoing signs lead a manager to suspect chemical abuse by a subordinate, the manager should interview the employee at a time and place when they will not be interrupted. The manager should confront the employee with evidence of unsatisfactory performance (absences, tardiness, errors, emotional outbursts, uncompleted assignments) and ask the employee to

give reasons for the deteriorating performance. If the employee denies having a problem, the manager should ask whether she or he is experiencing health problems and receiving treatment of any kind. One authority suggests saying, "Ms. X, I am concerned about you and your patients' well-being. Recently your behavior has been similar to that exhibited by a person who abuses drugs. Are you taking more medication than your doctor has prescribed?" (Stepter, 1982). After it is established that an employee has a chemical dependency problem, she or he should be referred to the agency's employee-assistance program for appropriate treatment and rehabilitation. Studies show that 90 percent of chemically impaired health professionals who undergo a residential treatment program recover from addiction, and 85 percent become productive employees (Kabb, 1984).

When a recovering employee returns to work following treatment, some health agencies implement a monitored treatment program and return-to-work contract to facilitate the worker's assimilation into the work force (Robbins, 1987). In the return-to-work contract, a recovering employee attests to her or his chemical dependency and promises to:

1. Abstain from all mind-altering and addicting drugs.
2. Inform any physician whom she or he consults about previous chemical dependency.
3. Inform the head nurse and one staff nurse (the recovering employee's peer monitor) of her or his chemical dependency.
4. Refrain from administering any narcotic or mind-altering drug to patients for six months.
5. Administer addicting drugs only when supervised by the designated peer monitor for a period of three months.
6. Attend weekly meetings of recovering impaired health professionals.
7. Submit to weekly and random blood and urine drug screening tests and attend regular

meetings of Alcohol or Narcotics Anonymous groups.

Careful scheduling and job assignment by the nurse manager will maximize a returning employee's chances of recovery from chemical dependency. Horberg and Schnoll (1983) claim there are four stages of recovery from chemical dependency: premotivation, breakthrough, early recovery, and extended recovery. According to Veatch (1987), chemically dependent nurses cannot withstand the demands of most nursing jobs until they reach the fourth stage of recovery. During the premotivation stage, the impaired nurse strongly denies the reality of drug dependence. She or he may have stopped taking drugs to satisfy others' demands but believes it possible to return to occasional drug use at some future time. In the breakthrough stage, the nurse acknowledges addiction and feels optimistic about life-style changes but fails to appreciate the full extent of needed change. During early recovery, the nurse begins to identify herself or himself and be identified by others as a drug-free person. During early recovery the nurse uses a support group to explore life conditions that led to chemical dependence and the life-style changes needed to promote recovery. During extended recovery, the nurse acknowledges feelings about self and significant others and acquires respect for her or his ability to cope with life's frustrations. It is only during the extended recovery stage that a nurse is ready to resume employment. Even then, the recovering nurse should not be assigned to a nursing unit that is undergoing marked stress or change (Robbins, 1987).

When interviewing a nurse who has returned from treatment for chemical dependence, a manager should investigate stressors in the nurse's previous job that provoked or supported chemical dependence and factors in the proposed job that may prove stressful. This information will be useful in modifying job tasks or working conditions to maximize chances for the employee's long-term recovery. The manager

and returning nurse should design an individualized orientation program to maximize the probability of job success. During this interview the manager may introduce the returning nurse to the peer monitor specified in the recovering nurse's return-to-work contract.

PROTECTING PERSONNEL FROM HAZARDS

One aspect of the nurse manager's leadership responsibility is the obligation to protect subordinates from unnecessary health risk. The occupational hazards to which nurses are most liable are physical trauma, infection, toxicological injury, and stress (Lewy, 1981). Nurse managers at all levels of the organization's hierarchy should institute policies and procedures to protect nursing personnel from these hazards.

Physical Trauma

Nurses suffer accidental trauma from handling malfunctioning electrical equipment; exposure to ionizing radiation; falling on slippery floors; lifting heavy patients or equipment; handling needles and scalpels; and dealing with violent patients (Jankowski, 1986; Patterson et al., 1985). According to Lewy (1981), nurses, food service workers, and maintenance workers have the highest injury rates of all hospital employees, and back injuries are the leading cause for job-related time loss. Research has not shown that job-related back injury can be decreased by training employees in safe-lifting techniques. Some suggest that work-related back injuries could be decreased by using strength testing to select manual workers (like nurses) and redesigning job tasks to minimize the need to lift and push (Snook et al., 1978). A manager who fits patient areas with adequate assistive equipment, such as mechanical patient litters, cardiac chairs that convert to stretchers, and recovery beds that convert to gurneys, enables caregivers to simplify, decrease, or eliminate many of the difficult patient transfers in which personnel are injured.

Emergency and psychiatric nurses are prone to traumatic injury during violent patient out-

bursts (Patterson et al., 1985). Managers can decrease this type of injury by training personnel to perform rapid, systematic, global assessment of violent behavior and identifying measures to prevent assault. By evaluating a patient's preassault, assault, and postassault behavior, a nurse can determine whether the cause for the patient's violence is situational, organic, or functional (Rada, 1981). Common situational causes of violence are miscommunication between physician and patient; misplaced hostility toward family members; guilt feelings about personal responsibility for illness; and rejection of forced dependency. Common organic causes for violence are electrolyte imbalance (especially in the aged who suffer from acute febrile illness); organic brain syndrome; anemia; temporal lobe epilepsy; and alcohol or drug intoxication. Common functional causes for violence are schizophrenia; paranoia; mania; and agitated depression.

Unprovoked violence is especially characteristic of paranoid schizophrenia. Consequently Rada (1981) advises that these patients be interviewed in a large, open room where patient and interviewer have easy access to the door. In all types of patients, violent behavior is precipitated by the individual's fear of being in severe danger. Rada recommends that caregivers avoid a machismo attitude in approaching a potentially violent patient. Instead, the caregiver should assure a violence-prone patient verbally and nonverbally that she or he does not intend to threaten the patient's welfare in any way.

Managers can protect personnel against damage from malfunctioning electrical equipment by having all electrical equipment checked by a safety engineer twice a year. They can protect caregivers from radiation injury by teaching them how to increase distance from the source, decrease the time of exposure, and screen themselves from the source (Jankowski, 1986).

Toxicological Injury

Common toxicological hazards for nurses include exposure to waste anesthetic gases, form-

aldehyde, and cytotoxic drugs (Patterson et al., 1985). Studies have revealed an increased incidence of spontaneous abortion in women with occupational exposure to nitrous oxide, halothane, and methoxyflurane (Kneedler and Purcell, 1989; Vessey, 1978). Studies have also revealed perceptual, cognitive, and motor impairment in workers with repeated exposure to anesthetic gases (Cook et al., 1978). A nurse manager can minimize this hazard for operating room and recovery room nurses by demanding adequate ventilation of operating and recovery room suites and a semi-annual air level monitoring to detect the presence of anesthetic gases.

Formaldehyde, which is used as a disinfectant in renal dialysis units, can cause dermatitis and asthma in exposed workers. The nurse manager can protect dialysis unit workers from formaldehyde intoxication by demanding adequate ventilation of the unit and semiannual monitoring of formaldehyde levels in ambient air.

Research has shown higher-than-expected rate of spontaneous abortion and malformed infants in nurses who were exposed to antineoplastic drugs during the first trimester of pregnancy (Selevan et al., 1985). Managers can reduce nurses' risk from this hazard by insisting that vertical laminar air flow hoods be provided in areas where nurses prepare doses of cytotoxic drugs, such as cyclophosphamide, doxorubicin, and vincristine; that nurses wear gloves during preparation and administration of these drugs; and that eating, drinking, and smoking be prohibited in areas where cytotoxic drugs are prepared and administered to prevent accidental ingestion (Occupational Safety and Health Administration, 1986).

Infection

Nurses are at risk of acquiring infections through frequent and prolonged contact with infected patients and objects contaminated by infected patients. The consequences of infection with rubella, tuberculosis, viral hepatitis, and acquired immune deficiency syndrome (AIDS) are especially serious. To protect nursing per-

sonnel from these consequences, managers should implement the following policies and procedures. Proof of rubella immunization should be required for females of childbearing age who work in high-risk areas, such as pediatrics (Lewy, 1981). High-volume ventilation and ultraviolet irradiation of upper-room air should be instituted in areas where undiagnosed tuberculosis patients may be examined or treated, as in bronchoscopy units (Centers for Disease Control, 1982). Immunization against hepatitis B is recommended for all health care personnel who work in high-risk areas, such as hemodialysis units (Centers for Disease Control, 1983). In addition, personnel in high-risk areas should wear gloves when handling blood or blood-soaked dressings, should avoid recapping needles after use, and should keep skin wounds and irritations covered with an occlusive dressing.

AIDS

Studies show that the risk of acquiring AIDS from occupational exposure is extremely low (Henderson et al., 1986). However, in one study 20 percent of nurses reported HIV exposure through contact with blood or body fluids of AIDS patients (Wiley et al., 1990). Precautions are needed to protect nursing personnel from such risks. HTLV III, the causative agent of acquired immune deficiency syndrome, is transmitted through contact with contaminated blood and body fluids. Unfortunately, health history and physical examination do not reliably identify all patients with AIDS, so that nursing personnel should be instructed to use precautions when handling blood and body fluids from *all* patients, especially those in emergency care settings (Centers for Disease Control, 1987). Universal blood and body fluid precautions include wearing gloves when touching blood, body fluids, mucosa, or nonintact skin and when performing venipuncture; wearing face shields and protective eyewear during procedures involving spray of blood or body fluids; disposing of needles and other sharp instru-

ments in puncture-proof containers located close to the place of use; use of a disposable mouthpiece or hand-compressible bag for resuscitation; and discarding blood- and drainage-soaked dressings in impervious plastic bags that are marked for decontamination before disposal. In the event of accidental needle-stick or puncture injury from an article contaminated with blood or body fluids of an AIDS patient, the site should be bled immediately and washed with antimicrobial soap. Then the incident should be reported to the agency's health service for recommended follow-up.

When the foregoing precautions are used, AIDS patients need not be housed in private rooms or provided with separate toilet facilities, unless fulminating diarrhea or AIDS involvement of the central nervous system render the patient incapable of handling secretions and excretions hygienically. If an AIDS patient is able to manage secretions and excretions properly and is not afflicted with tuberculosis or other airborne disease, there is no reason to restrict him to his room. An AIDS patient who is treated in psychiatric facilities should not be excluded from group activities or denied use of the swimming pool, unless he or she demonstrates unacceptable behavior, such as biting others or smearing excreta, which could subject patients and staff to contamination.

Stress

Nursing personnel are subject to psychosocial stress due to shift rotation, extended work schedules, and prolonged contact with irritable, depressed, or moribund patients (Lewy, 1981; Williamson et al., 1988). The nature of hospital work also forces nurses to make important patient care decisions under conditions where it is impossible to predict events and outcomes with certainty. This situation is markedly at odds with the scientific model of decision making that is promulgated during a nurse's basic education for practice. Nurses may demonstrate psychosocial stress by assuming extra work, social withdrawal, substance abuse, or depression.

The nurse manager should monitor subordinates for these behaviors, confront impaired workers about their declining productivity, and refer overstressed employees to appropriate support groups or medical care. Studies show that nurses in certain specialties, such as intensive care, are at high risk of psychological stresses. Intensive care units are characterized by complex machinery; high noise level; intimate contact with blood, vomitus, and excreta; exposure to wasted bodies; time pressure; emergencies; exposure to electrical, radiological, and infection hazards; and little positive feedback from patients and relatives (Hay and Oken, 1972). To offset these stressors, a nurse manager should facilitate peer support among members of the work group by arranging social activities and holding regular staff meetings in which nurses can express hostilities, ventilate unresolved feelings, and relieve the guilt and shame associated with real or imagined shortcomings (Hay and Oken, 1972; Mechanic and Aiken, 1982).

Stress caused by AIDS

The current AIDS epidemic has created a special type of job-related stress for nurses. Nurses who work with AIDS patients frequently experience depression arising from contact with irritable, hostile, severely ill patients and from their own inability to prevent patient decline and death, despite heroic care and treatment measures. Nurses who work with AIDS patients report that their choice of assignment subjects them to the same stigma as that suffered by the patients (Feinblum, 1986). Fear of contracting AIDS has caused some health care workers to refuse to care for AIDS patients (Flaskerud, 1991).

To combat nurses' fears of contracting AIDS, managers should teach all personnel the epidemiology of the AIDS virus, methods of killing the virus, and procedures for protecting self and others from contamination with HTLV III-infected blood and body fluids (Raffin et al., 1993). The manager should schedule discus-

sions with small groups of nursing personnel and invite them to ventilate concerns about caring for AIDS patients and to explore legal and ethical issues embedded in refusal to care for patients with a particular diagnosis. Flaskerud (1988) recommends that each health care agency implement a multifaceted program to provide the following support for nurses who care for AIDS patients:

1. Group discussions to reach agreement among all health care professionals about desirable agency goals for treating AIDS patients and methods for enhancing AIDS patients' quality of life throughout the entire course of illness.
2. Regular meetings of nurses with mental health consultants who can provide crisis intervention and long-term psychological support to overstressed caregivers.
3. Consistent work schedules, so as to prevent circadian rhythm disturbances for already overstressed employees.
4. Scheduling sufficient staff to meet patients' care needs, thereby enabling nurses to take scheduled meal and coffee breaks.
5. Suggesting that staff take brief respite breaks throughout the day (gaze out the window, wash face and hands, perform isometric or relaxation exercises) to prevent overlong concentration on emotionally charged issues.
6. Provide opportunities for meaningful, absorbing diversional activity during off-duty hours.
7. Encourage nurses to take regular vacations and use long holiday weekends for recreation rather than for "catching up" on uncompleted assignments.

Finally, to protect subordinates from unnecessary health risks and ensure adequate care for employees who suffer work related illness and injury, the nurse manager should demand that the agency provide employees with fringe benefits that include a full range of preventive, diagnostic, therapeutic, and rehabilitative

services. If the agency has not implemented a formal occupational health program for employees, the manager should lobby for one. When an employee health service exists but is underfunded, the manager should agitate for improvement and expansion of services. When an adequate employee health service exists but is underused, the manager should encourage subordinates to avail themselves of employer-provided health-maintenance and health-promotion programs.

MEMO CAPSULE

Work Hazards

- Accidental trauma: Falls, muscle strains, cuts, punctures
- Toxic substances: Anesthetics, formaldehyde, cytotoxins
- Infection: Tuberculosis, AIDS, hepatitis B
- Stress: Noise, odors, irritable staff, patients, families

COORDINATION

Coordination is the third major leadership activity and includes all activities that enable work group members to work together harmoniously. The first-level manager is well suited to coordinate activities of direct caregivers, because she or he has intimate knowledge of the caregivers' responsibilities and can directly influence communications and interactions among them. Coordination of workers is becoming increasingly important to health agency success. As technology improves and workers become more specialized, caregivers have greater difficulty communicating with each other, although each specialist must build on the efforts of others. Unfortunately, knowledge workers are seldom in phase with one another, so that a nurse manager must integrate the efforts of various caregivers to ensure optimum patient outcomes. As nurses become increas-

ingly specialized, managers need collaborative skills to blend them into efficient service teams. To be effective, a patient care team should include persons of different personality types, but the manager must be able to accommodate members' behavioral differences in bonding workers together for maximum productivity. A tool called the SELF profile can be used to categorize employees into four behavioral types: self-reliant, enthusiastic, loyal, and factual. Authors of the tool claim that self-reliant individuals exhibit competitiveness, self-control, and inclination to take interpersonal risks. Self-reliant individuals are task oriented, cool in interpersonal relationships, and inclined to direct others' activities. Enthusiasts are extroverted, verbal, fast-acting, high-risk, individuals who quickly develop interest in new projects, easily lose interest in projects, and are inclined to reveal their personal feelings. Loyal individuals are people oriented, more interested in feelings than facts, prefer low-risk situations, and are inclined to solicit information about others' feelings. Factual individuals are nonverbal, low-risk takers who study all available facts before making decisions. Factual individuals are cooperative and self-controlled in interpersonal relations and inclined to question others about their activities. A work team that includes these four types of workers would permit more than one approach to functions of information gathering, data analysis, and problem solving. If team members recognize their diverse cognitive and emotional styles and believe that a blend is helpful in resolving complex work problems, they will voluntarily share leadership responsibilities during implementation of a prolonged, multi-step project (Jacobsen-Webb, 1985).

Often, a manager must use first one, then a different method to integrate the work of diverse health care specialists. At any point, the manager's integration method should be chosen to suit the difficulty and urgency of the group's task, work group size and sophistication, and communication style. To coordinate the activities of dissimilar workers, the manager must

restrict their behavior to some degree. One employee's task may have to be speeded up or delayed to keep it in phase with another worker's efforts. The scope of one job may have to be narrowed to prevent jurisdictional disputes between specialists. Because externally applied controls restrict autonomy, employees with a high need for independence may subvert a manager's coordination efforts. Diplomacy and persuasion are more effective than autocratic direction in integrating efforts of highly refined health care experts.

Employees must understand one another's task requirements to work together harmoniously. Therefore, coordination requires frequent information exchange between leader and subordinates. Usual methods for transmitting information within the primary work group are face-to-face conversations, memoranda, posters, and position papers.

A memorandum is a brief, informal, written communication that presents the main points of a work-related message in conversational language. Memoranda are used to transmit essential information to workers when speed, precision, and clarity are critically important but face-to-face communication is not essential.

Posters are useful in communicating brief, factual, operational information, such as notification of meetings and educational offerings, reminder about rules governing clinical practice, and detailed personnel data, such as employee time schedules and assignments. To be effective, posters should be boldly and attractively displayed on an uncluttered bulletin board or easel at a point where traffic channels intersect. Posters should be removed after a few days to make room for more current messages (although time schedules should be displayed throughout the time period to which they apply).

A position paper is an expository document that explains the viewpoint of an individual or small group concerning an issue of interest to the total work force. Often, position papers are used to provide staff with background information about a proposed agency project in or-

der to focus later discussions with employees about the project's objectives and methods. After reading an executive's or administrative group's statement of position about a future agency program, employees can explore possible advantages and disadvantages before implementation.

Much coordination of employee effort occurs during meetings of the primary work group, because some members specialize in task-related activities, such as refining goals, identifying problems, and analyzing data; and others specialize in group-maintenance activities, such as providing emotional support, releasing tension, and emphasizing solidarity.

A supervisor with high-level group-dynamics skill uses group syntality to coordinate the efforts of independent specialists. In a tightly knit group whose members identify strongly with group goals, syntality causes deviant members to disregard personal judgments and preferences and move toward majority opinion when the group is under stress.

Group meetings, like other leadership techniques, can be overused to the point that their uniting effects are diminished. To preserve the ability of group spirit to harmonize individual differences, meetings should be few and brief. Each meeting should begin with a clear statement of purpose, given by the member who convened the group. Minutes of proceedings should be recorded for each meeting and circulated promptly to attendees and group members who were unable to attend. Informational meetings should be brief and attendance can be voluntary, because all announcements will be recorded in minutes and distributed to every member, whether present or not. When the manager must limit discussion in an informational meeting, the session should be conducted with members standing throughout. However, problem-solving meetings should be long enough to permit full discussion of problem topics, and attendance should be mandatory for as many staff members as can safely be excused from the patient area. Broad representation and adequate

time are needed for problem-solving meetings to ensure contributions from all employees who know the problem and are interested in its solution. After the group's solution has been implemented, the manager should report success or failure of the remedial action taken, so that further problem solving can be undertaken, if necessary.

MOTIVATING

According to some experts, a nurse manager's most important leadership task is to maximize subordinates' work motivation. Many believe that an employee's motivation is related to her or his productivity, job satisfaction, absenteeism, and job turnover. However, the exact nature of these relationships has not been clearly established.

To increase employee motivation, a nurse manager must know which needs the employee expects to satisfy through employment and should be able to predict which needs will be satisfied through the job duties of each nursing position. It seems logical that a person's job attitudes would influence work motivation. An attitude is a consistent mental position or feeling about some event or environmental stimulus. A nurse might hold the fixed opinion that physical aspects of patient care are more necessary for patient survival than psychological aspects of care. A nurse with this attitude would probably give higher priority to physical care measures than psychological interventions when working under time pressure. A motive is a need or desire that incites and directs a person's actions. A nurse with strong affiliation needs would probably prefer team nursing, which involves nurses in close collaboration with others, to primary nursing, which requires more independent, self-directed action.

General theories of motivation are helpful in analyzing the employment motivations of nursing personnel. Principal types of motivational theory are need theory, operant theory, expectancy theory, equity theory, and competence theory.

Need Theory

Abraham Maslow (1943) described humans as "wanting" organisms who satisfy basic needs in a specific sequence. The first level of this hierarchical sequence includes physiological needs, such as food, fluid, air, rest, elimination, temperature control, and pain avoidance. The second level includes stimulation needs, such as sexual activity, manipulation, exploration, and novelty. The third level includes safety needs, such as safety, security, and protection. The fourth level includes love needs, or desire for affection, belonging, closeness, and intimacy. The fifth level includes esteem needs, such as status, respect of others, and self-esteem. The sixth level includes self-actualization needs, or desire to become the best person that one is capable of being. Maslow claims that higher-level needs do not emerge as motivators until lower-level needs are satisfied and a satisfied need no longer motivates behavior. Current American pay scales are high enough to satisfy most workers' survival needs, so the possibility of a pay increase is not a strong motivator for American workers. On the other hand, a job that permits autonomy of action satisfies stimulation needs; a job that emphasizes teamwork satisfies belonging needs; a job that allows freedom of expression satisfies esteem needs; and a job that encourages creativity satisfies self-actualization needs.

Frederick Herzberg (1966) proposed a two-factor motivation need theory, claiming that workers are motivated by two types of needs: needs relating to working conditions, which he called hygiene factors, and needs relating to the work itself, which he called motivation factors. Herzberg said that pay, working conditions, quality of supervision, job security, and agency policies are hygiene factors. He theorized that, although satisfying hygiene needs will not provide job satisfaction, their absence causes job dissatisfaction. Hence, he called the hygiene factors "dissatisfiers." Motivating factors include challenging aspects of the work, added responsibility, opportunities for growth, and oppor-

tunities for advancement. Herzberg claimed that absence of motivation factors causes a lack of job satisfaction, not job dissatisfaction. Therefore, he called motivating factors "satisfiers."

According to his two-factor theory, managers should expect salary increases, supportive supervision, and upgrading of clinical facilities to decrease nurses' dissatisfaction, without increasing job satisfaction. However, managers should expect change from team to primary nursing—which gives the nurse increased responsibility, autonomy, and status—to increase nurses' job satisfaction without decreasing their dissatisfaction with pay, supervision, or agency policies.

A third need theory of motivation was developed by David McClelland (1961) who claimed that human needs are socially acquired and that humans feel basic needs for achievement, affiliation, and power. Need for achievement is the drive to exceed one's former accomplishments, to perform an activity more skillfully or effectively than before. A person with high achievement need spends much time thinking about how to improve personal performance, how to overcome obstacles to improvement, and what feelings will result from success and failure. McClelland claims that a person with high achievement need sets moderate, realistic goals, enjoys problem-solving activities, and desires concrete feedback on performance.

A staff nurse with high achievement need who aspires to nursing leadership would probably acquire master's level preparation in a clinical specialty before applying for the position of head nurse, clinical specialist, or supervisor, because graduate-level education would maximize success in these positions. Furthermore, the nurse would probably apply for a position that demands a slightly higher level of ability or responsibility than her or his present level, because the added challenge would provide opportunity for growth.

The need for affiliation consists of a desire for friendship, love, and belonging that causes a person to spend much time planning how to

establish friendly personal relations. Persons with high affiliation need are sensitive to others' feelings, support others' ideas, and prefer jobs involving conversational give-and-take (Steers and Porter, 1983). A staff nurse with high affiliation needs might forgo an opportunity for promotion to head nurse position from fear his or her new leadership role would weaken social ties with former coworkers.

Need for power is the desire to control the means of influencing others and resisting control by others. Persons with high power needs spend much time thinking about how to gain authority, dominate decisions, and change others' behavior. Such persons are likely to be articulate, demanding, and manipulative in dealing with peers and subordinates. A nurse with high power needs would probably seek opportunities to influence others through persuasive speaking—as officer in a professional organization—or control others through formally sanctioned power—as line manager in a nursing organization.

A significant finding of McClelland's research is the fact that training programs are capable of increasing achievement motivation of workers in several occupations (McClelland and Winter, 1969). It should be possible for a nurse manager to increase the achievement need of unproductive staff members by involving them in appropriate staff-development programs.

Operant Theory

B. F. Skinner's operant theory suggests that an employee's work motivation is controlled by conditions in the external environment, instead of internal needs and desires. Skinner (1969) claims that humans exhibit two types of behavior—respondent and operant. Respondent behavior occurs as a result of direct stimulation. Operant behavior occurs in the absence of any apparent external stimulation. When operant behavior is followed by consequences that increase or decrease the likelihood of that behavior's recurrence, the consequence is termed a "reinforcer." A positive reinforcer is a conse-

quence that *increases* the probability that the behavior will be repeated. If a head nurse compliments each nurse who initiates a discharge plan within eight hours of a patient's hospital admission and the compliments increase the likelihood that nurses will initiate discharge plans promptly, a compliment from the head nurse is a positive reinforcer. A negative reinforcer is a consequence that, if removed, increases the probability that the behavior will be repeated. If a head nurse administers a verbal reprimand to any nurse who reports late for duty, and nurses report on duty at the proper time to avoid being reprimanded, a reprimand from the head nurse is a negative reinforcer. Skinner claims that human behavior can be controlled by manipulating the consequences of behavior to increase the probability that the behavior will be repeated. He states that positive reinforcement is more effective than negative reinforcement. For maximum effectiveness, the reinforcer should be administered immediately after the desired behavior.

Expectancy Theory

Victor Vroom's expectancy theory of human motivation indicates that a person's attitudes and behavior are shaped by the degree to which they facilitate the attainment of valued outcomes (Vroom, 1964). According to Vroom's theory, the amount of an employee's job effort depends on her or his perception of the relationship between good performance and specific outcomes, together with a valuation of those outcomes. Porter and Lawler (1968) modified expectancy theory, suggesting that a worker's job efforts are determined by his role perceptions and personal traits, as well as by prediction of outcomes and valuation of outcomes.

House's path-goal theory of motivation is another type of expectancy theory. House proposed that effective leaders motivate by raising workers' desires for outcomes that the leader controls by clarifying the path to desired goals, by removing obstacles to goal pursuit, by increasing workers' satisfactions during goal pur-

suit, and by rewarding workers for goal attainment (House and Mitchell, 1974).

Equity Theory

Adams's (1965) equity theory of motivation suggests that an employee continuously compare her or his work inputs (skill, effort, time) and outcomes (status, pay, privileges) with those of other employees. The employee perceives inequity whenever her or his rewards are disproportionate to those received by other employees for the same amount of input. Feelings of inequity motivate an employee to resolve the inequity by reducing input, attempting to increase outcomes, selecting a different comparison worker, or resigning.

Competence Theory

White (1959) proposed a theory of competence motivation that resembles Skinner's operant theory. White claims that an individual's behavior is motivated by the desire to manipulate and control his or her environment and that successful control over the environment produces a feeling of competence. That is pleasurable and, thus, reinforces the person's attempts to control people and things in the workplace. The more successfully an individual controls others, the more competent she or he feels.

MEMO CAPSULE

Motivation Theories

- Needs: For safety, esteem, and achievement drive behavior
- Operant: Environmental factors support or extinguish behavior.
- Expectancy: Effort depends on anticipated work outcomes.
- Equity: Effort is adjusted to remedy work reward inequities.
- Competence: Pleasure is experienced through successful control over environment

and, so, the more frequently she or he employs controlling and manipulating behavior.

These motivation theories differ on the locus of work drive (internal or external to the worker) and mechanisms of external influences (push versus pull methods of motivation). Therefore, a nurse manager should decide which theory of motivation most accurately reflects reality before selecting methods to increase subordinates' motivation.

Job Satisfaction and Motivation

For some time researchers and managers have investigated the relationships between job satisfaction and productivity. "Human relations" research of the 1930s led investigators to believe that happy workers were more productive than unhappy ones (Roethlisberger, 1941). However, later research shows no clear relationship between job satisfaction and work productivity (Vroom, 1964). It has been demonstrated that job satisfaction does correlate negatively with absenteeism and job turnover (Porter and Steers, 1973). Job satisfaction is defined as one's affective response to the job. However, studies show that an individual's job is not a unitary attitude object. Instead, job satisfaction has several dimensions. According to Locke (1976), the following are job dimensions about which workers develop attitudes on a like-dislike continuum: nature of the work; pay; promotion opportunity; recognition; working conditions; benefits; supervision; coworkers; and clients. According to Locke, a worker's rating of any dimension as very positive or very negative indicates that the dimension is important enough to provoke strong feelings. Conversely, neutral feelings of satisfaction about a specific job dimension means that the dimension has little significance for the worker's total job satisfaction.

Some believe that job satisfaction reflects a degree of congruity between a worker's expectations of the job and experience of the job (Locke, 1976; Vroom, 1964). White and Mitchell (1979) claim that the degree of job

satisfaction is influenced by a worker's perceptions of other workers' satisfaction in the same job. Herzberg (1966) claims that a worker's job satisfaction results from a different set of factors from those that cause job dissatisfaction. According to Herzberg, job satisfaction depends on the amount of autonomy, responsibility, recognition, and achievement afforded by the job; and dissatisfaction is associated with work environment and conditions. On the other hand, Katz and Van Maanen (1977) claim that job satisfaction derives from distinct factors: job properties (similar to Herzberg's satisfiers); interactional context for work (one of Herzberg's environmental factors); and work policies (another of Herzberg's environmental factors).

Several studies revealed that nurses experience low levels of job satisfaction. In a study of several types of health care personnel, the lowest job satisfaction was reported by hospital staff nurses (Hurka, 1974). A survey of nurses in Chicago and San Francisco (McClosky, 1974, revealed that psychological rewards, such as educational opportunities, career advancement systems, peer recognition, and research opportunity, and "safety" rewards, such as salary increase, extended vacation, and improved work schedules, produced greater job satisfaction than did social rewards, such as socializing with peers and sharing opinions and feelings.

In a study by Moser and Krikorian (1982), hospice nurses found interaction with clients and family a greater source of job satisfaction than working conditions. In a study by Thiry (1979), nurses reported their greatest job satisfaction from pleasant superior-subordinate relationships and their greatest dissatisfaction from inadequate job information and ineffective conflict handling.

In a survey of Florida nurses (Ginzberg et al., 1982), one-third of respondents reported substantial job dissatisfaction, and one-half reported dissatisfaction with the nursing career. For these nurses, the major reasons for job dissatisfaction were inadequate salary, devaluation of nursing work, and difficult duty hours. In a

survey of Texas nurses (Wandelt et al., 1981), the primary causes of job dissatisfaction for employed nurses were inadequate salaries, excessive paperwork, lack of administrative support, and lack of in-service education. Unemployed nurses reported difficult work schedules and unsatisfactory relations with physicians as reasons for leaving nursing. In small-group interviews, nurses reported job dissatisfaction from work overload, need to assist other personnel, and need to "float" to other nursing units. In a study of New York nurses (Hunter et al., 1986), unionized nurses reported dissatisfaction with salary, bonus policy, and compensation for education and experience; but satisfaction with grievance procedures and fringe benefits. Nonunionized nurses reported dissatisfaction with grievance procedures, fringe benefits, and compensation for education, but satisfaction with salary. Researchers pointed out that factors that satisfied unionized nurses and dissatisfied nonunionized nurses (grievance procedures and fringe benefits) are issues that are traditionally negotiated through collective bargaining.

There is evidence that job stress and job dissatisfaction decrease nurses' work motivation. Hans Selye (1956) defined stress as a nonspecific physiological response of the human organism to any demand. Selye claims that the general adaptation syndrome (GAS) consists of three phases: alarm reaction, characterized by increased production of pituitary and adrenal cortical hormones; resistance stage, in which symptoms of the alarm reaction disappear and the body's resistance increases to deal with stressors; and exhaustion stage, in which long-standing stressors overcome the body's hormonal and tissue adaptations, producing exhaustion and collapse. Selye said that the body's stress response is the same regardless of the challenge confronted. He indicated that stress is not wholly undesirable. Mild or moderate stress stimulates an individual to increased effort and accomplishment, with positive long-term effect. However extreme, prolonged stress eventually

overwhelms an individual's physical and psychological resources.

Frain and Valigna (1979) classify human stress reactions into four categories: level 1 reactions include automatic responses to routine stressors where the reaction is unthreatening and unrecognized; level 2 reactions are responses to mildly stressful life events that are perceived as threatening by the individual; level 3 reactions are moderately stressful responses to persistent stressors that are not resolved by adaptive reactions and render the individual unable to function; level 4 reactions are the stage in which physical and emotional resources are exhausted, and the organism undergoes disorganization and death.

The term *burnout* refers to a complex of behaviors manifesting an inability to cope with long-standing stress (Maslach, 1976). Typically, a burned-out professional demonstrates a loss of sympathy and respect for clients (Lavendero, 1981). Work quantity and quality decline when an employee experiences burnout (Edelwich and Brodsky, 1980).

Research has identified some job-related causes for burnout among nurses. In a survey of hospital nurses (Cronin-Stubbs and Rooks, 1985), critical care and medical nurses reported more frequent and prolonged occupational stressors than psychiatric and operating room nurses. Investigators concluded that critical care and medical nurses must manage a larger biopsychosocial science knowledge base to satisfy a patient's wholistic needs than the psychological knowledge base used by psychiatric nurses or the physiological knowledge base used by operating room nurses. A study of British student nurses corroborated Cronin-Stubbs and Rooks' findings, because service in medical wards was associated with greater affective distress than service on a surgical ward. Service on female wards (where patient length of stay was longest) also was associated with greater affective stress than service on male wards (Parkes, 1982).

In a study of acute care nurses, all subjects

reported experiencing physical and psychological symptoms of burnout during the previous year. Burnout symptoms included feeling frustrated, emotionally drained, fatigued, and personally entangled in patients' problems. These feelings caused subjects to feel callous toward patients' concerns and to treat them as impersonal objects. Reasons for burnout were dissatisfaction with salary; unsatisfactory communications with supervisors; irresponsible coworkers; and unpleasant job tasks (Albrecht, 1982). Scully (1980) identified four sources of job stress for staff nurses: caring for terminally ill patients; conflict among personnel; inadequate staffing; and unrealistic self-expectations, of which the latter was most significant.

Jacobson (1978) found the most common sources of stress for neonatal intensive care nurses were the emotional response to patients' suffering, disrespect among nurses, poor relations with doctors, understaffing, skill inadequacy, and bureaucratic conflict. Jacobson concluded that psychological conflict and feelings of inadequacy contributed more to work stress than unfavorable work environment. Another study of neonatal intensive care nurses revealed that staff nurses whose head nurses' leadership style showed high structure and low consideration experienced more burnout than nurses whose head nurses' leadership style showed low structure and high consideration or low structure and low consideration (Duxbury et al., 1984).

In a study of operating room nurses (Olsen, 1977), role ambiguity and doctor-nurse conflict were common causes of stress, and stress levels were higher for staff nurses than for supervisors or technicians. A nationwide job satisfaction survey (Donovan, 1980) revealed that a sense of achievement was important to 92 percent of respondents, but only 33 percent experienced satisfaction with achievement. Although intellectual stimulation was important to 77 percent of respondents, only 28 percent reported such stimulation. Although educational opportunities were important to 63 percent, only 27 per-

cent were satisfied with educational opportunities. Although opportunities for advancement were important to 42 percent, only 17 percent were satisfied with advancement opportunities. Interestingly, both hygiene and work factors were important to study subjects. For example, financial reward was important to 60 percent of respondents, although only 18 percent were satisfied with salary.

In summary, research suggests that the same factors that cause job dissatisfaction and lack of satisfaction produce job stress. Studies also show that prolonged job stress causes burnout, leading to emotional withdrawal from patients, excessive absenteeism, and rapid job turnover (Cronin-Stubbs, 1977; McClosky, 1974; Rhein and Chang, 1981).

Preventing and Relieving Stress and Burnout

Any attempt to increase employee motivation should begin by eliminating unnecessary job stress. Some nurse educators insulate students against later burnout by providing small doses of job stress during the undergraduate nursing program, when student status and ready access to faculty can cushion the individual against more serious consequences of stress. Faculty can provide senior year practicums in which the student is assigned to manage a group of patients, work rotating shifts, or assume charge nurse responsibility, while being coached in methods of coping with competing demands and building a peer-support network (Magill, 1982).

A staff-support group that is run by a qualified leader can decrease staff nurses' job stress (Buechler, 1985). Such groups should not address employees' personal concerns or personality problems. However, a properly directed support group can help employees to identify the causes of job stress, recognize personal responses to stress, and develop effective coping strategies. According to Scully (1981), support groups under a pair of coleaders, one inside and one outside the agency, are more effective than groups with a single leader. Double leadership combines the advantages of system familiarity

and problem objectivity. Effective staff-support groups help employees to recognize that job stress is contagious and to discover ways for workers to help one another cope with specific stressors (Johnson, 1982).

In health agencies where professional burnout causes excessive absenteeism and turnover, a multifaceted worker-support program is needed to reduce stress to manageable levels. In addition to the support groups described, a multifaceted support program should include an exercise program, nutrition instruction, stress-management workshops, individualized counseling, and such health promotion programs as hypertension screening, stop-smoking clinics, and weight loss programs (Patrick, 1984). A stress-management workshop might include instruction in the following techniques: time management; methods of delegation; relaxation technique; meditation techniques; and yoga (Webber et al., 1985). Job stress can also be reduced by improving job design, personnel policies, and staff relationships, as research has identified these as common causes of burnout.

Increasing Motivation through Job Redesign

If Herzberg's two-factor theory of motivation is accurate, a manager can increase subordinates' motivation by increasing job requirements for responsibility and autonomous action. Job rotation, enlargement, and enrichment are methods for increasing job challenge, thereby appealing to higher-level needs for self-esteem, achievement, and self-actualization.

Job rotation can increase work motivation for an employee whose tasks cannot be changed but are acknowledged to be monotonous. The worker is relieved of usual tasks for a specified period and rotated through a series of other tasks, of a type that provide opportunity to learn new skills and acquire a clearer perspective of the place of the worker's usual job duties in total agency operations. Job rotation is only moderately effective in increasing motivation, be-

cause the worker must eventually return to her or his usual boring, unchallenging tasks.

Job enlargement can motivate workers when boredom and dissatisfaction result from overspecialization and short job-activity cycle. The specialist's job is expanded to include some duties that are normally the responsibility of other specialists; tasks entailing broader skill and longer activity cycle. Job enlargement forces a worker to learn new skills and undertake new activities, so boredom is relieved and motivation is increased.

In job enrichment work is redesigned to decentralize decision making to individual caregivers, which heightens worker initiative, stimulates skill development, and encourages accountability. Job enrichment may include horizontal loading (incorporating tasks of other specialists) and vertical loading (adding management functions). To foster increased responsibility and accountability, the enriched job is designed to encompass all activities that produce a specific work goal (Herbert, 1976). According to Hackman and Lawler (1977), the following job dimensions are related to work motivation: variety; task identity; autonomy; and feedback. Horizontal loading increases task variety; vertical loading increases autonomy and feedback; grouping of requisite goal-related activities increases task identity. Therefore, job enrichment increases worker self-motivation. In job rotation and job enlargement, job processes are emphasized. In job enrichment, work outcomes and employee accountability are emphasized.

Most authorities agree that job enrichment improves worker motivation to a greater degree than job rotation or enlargement. However, job enrichment will not solve all staff motivation problems. Every job is not suitable for enrichment. Some workers do not desire additional job challenge. Technological advances govern clinical nursing practice. Therefore, the structure of clinical nurse positions is dictated, in part, by patient care technology. For

example, structure of a staff nurse position in the operating room, coronary care unit, critical care unit, or hemodialysis unit is determined to some degree by the man-machine systems used in patient care. In redesigning staff nurse jobs for enrichment, a manager would be constrained by conditions of the nurse-machine interface.

Job-enrichment efforts are based on the assumption that many service workers are bored by the repetitive nature of job tasks and desire greater work challenge. However, only workers with high-achievement need want increased job autonomy and responsibility. According to Fein (1977), only 15 percent of rank-and-file workers seek satisfaction of higher-order needs from work. Webber and associates (1985) claim that employees who expect only financial or social rewards from work are upset when their jobs are redesigned to increase challenge. Even if the caregiver welcomes job enrichment, the supervisor may not, because supervisors customarily use an authoritarian approach in overseeing routine tasks, whereas a participative approach is needed to supervise workers in enriched jobs (Herbert, 1976). Hackman (1977) claims that any change in job design alters the incumbent's relationship with supervisors, peers, and bystanders (workers in adjacent units who observe the change without participating in it). Some workers are loathe to forego the opportunities for socializing afforded by many routine jobs for the isolation associated with autonomous functioning. If a manager intends to enrich a job to increase motivation, she or he must first determine whether the job is suitable for enrichment. Structural cues signifying suitability for redesign include: control of communication into or out of a department; responsibility for checking others' work; and troubleshooting responsibility (Whitsett, 1977). Other circumstances indicating readiness for job enrichment are: a job created to reward a long-term employee for rare technical knowledge; excess number of position titles following functional specialization;

jobs with one-to-one reporting relationship; unclear division of responsibility between parallel positions, and unduly complex work flow. These structural features indicate that a particular job is poorly designed, that is, that it does not constitute a complete piece of work, does not permit incumbent to control work pace, or does not provide prompt performance feedback.

After a manager has identified a job to be enriched, the following guidelines should be followed in redesigning the job (Herzberg, 1968):

1. Remove some of the job's external controls.
2. Increase incumbent's responsibility for his or her own work
3. Design a complete, natural unit of work
4. Give the incumbent authority to control the pace of her or his work.
5. Give the employee periodic reports of work effectiveness.
6. Incorporate additional specialized tasks in the job.

A few months after a job has been redesigned, the incumbent's productivity should be compared with her or his productivity in the same job before job redesign. If the incumbent's work output has not increased, the job may need further revision. Alternately, the manager may conclude that the incumbent has low-achievement motivation.

Clinical Ladder Systems

Some hospitals initiated clinical ladders to keep superior clinical nurses at the patient's bedside (Balasco and Black, 1988). A clinical ladder is a system that rewards excellence in clinical practice by providing advancement opportunities to nurses whose performance meets criteria for a higher stratum in the clinical (not administrative) hierarchy. Clinical ladders are based on clinical competence rather than educational preparation. A nurse earns promotion from one ladder rung to the next by achieving objective

performance criteria, not by accumulating additional academic credits or degrees (Deckert et al., 1984). Clinical ladders differ from one agency to the next. Most ladders consist of three to six levels. Some have more than one track (Sanford, 1987). In most health agencies, advancement to a higher level of the clinical ladder brings a salary increase and additional responsibility for planning, policy making, and education of nursing students or new employees. In most agencies ascending the clinical ladder is voluntary. A nurse who is satisfied with her or his present level of practice and wants no responsibility for planning, policy making, or

teaching need not submit to the criterion-based peer and superior evaluations that determine advancement. So far, there is no research evidence to indicate whether clinical ladders improve care quality, increase job satisfaction, or decrease turnover. Neither is it clear whether clinical ladder systems are cost-effective in retaining highly skilled clinical personnel (Del Bueno, 1982; French, 1988).

SUMMARY

To accomplish work through subordinates, a manager must point them in the proper direction and guide them in achieving appropriate

RESEARCH BRIEF

Work Excitement among Nurses

Purpose: Determine what factors are related to work excitement for nurses in different work settings

Sample: One hundred sixty-eight staff nurses and head nurses working in two critical care units, one aeromedical unit, one rehabilitation unit, one surgical unit, two medical units, and one home health agency.

Method: Using work satisfaction or enrichment factors identified in the literature, researchers developed a forced-choice questionnaire to determine nurses' perception of the following factors in their current setting: (1) practice pattern; (2) interesting activities; (3) exciting aspects; (4) frustrating aspects; (5) time-consuming activities; (6) exhausting activities; (7) meaningful accomplishments; (8) technologies used. The investigator explained the study and distributed questionnaires to potential subjects during a staff meeting.

Findings: On average, subjects were over 40, married, female, bachelor's prepared. Only 35 of 168 said they were "very excited" about their work. Nurses working 50 to 59 hours per week reported higher levels of excitement than those

working 40 hours or less. Home health nurses and aeromedical nurses (neither of whom practiced primary nursing) reported greater work excitement than nurses in critical care, general care, or rehabilitation. Work arrangements (staffing adequacy and time availability), growth and development (opportunity to use theory and solve challenging problems), task variety, and working conditions (hours, schedule, pay) were significant predictors of work excitement. The most time-consuming activities were documentation, care plans, discharge planning, and high acuity patients. The most exhausting were routine care, transferring patients, demanding families, no time for lunch and breaks.

Application: Nursing might use some space program technology to eliminate time-consuming and exhausting job features. Technologies are available to assist with recordkeeping, toileting, bedmaking, lifting and moving patients, monitoring wanderers, and distributing medications. Effective managers adjust work arrangements or conditions so as to increase excitement, improve performance, and lessen the need for discipline.

Source: Stimms, L., Erbin Roesemann, M., Darga, A., and Coeling, H. Breaking the burnout barrier: Resurrecting work excitement in nursing. *Nursing Economics* 8(3): 177-187, 1990

goals. All leadership behavior is of two types: initiating structure and showing consideration. Most managers emphasize one of these behaviors more than the other. Generally, neither a task-oriented (initiating structure) nor a relationship-oriented (showing consideration) style is superior. Selected factors in the work situation, such as the quality of leader-member relations, amount of task structure, and amount of leader's position power, determine whether a task-oriented or relationship-oriented style will be most effective in that situation. A manager can alter aspects of the work situation to increase the effectiveness of her or his customary leadership style in the current work situation.

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Nursing Ethics

Do the right thing

SPRUE LEE

OBJECTIVES

After reading this chapter, you should be able to:

1. Describe two ethical dilemmas that nurses encounter concerning treatment decisions for patients.
2. Give one example of a nursing care or nursing management decision derived from each of the following ethical principles:
 - a. Respect for personhood
 - b. Autonomy
 - c. Justice
 - d. Veracity

Nurses' decisions are increasingly constrained by ethical issues. However, most basic nursing education programs do not include a formal ethics course. Therefore, nurses are apt to begin practice better able to understand the scientific basis for patients' illness and treatment than to decide the "rightness" or "wrongness" of specific nursing actions.

Ethics is the division of philosophy that relates to moral judgments concerning human conduct. Ethics is the study of what a person's conduct ought to be in particular circumstances. Ethical issues arise during nursing practice, because people have different beliefs, values, and

attitudes about life, quality of life, death, suffering, responsibility, justice, and equity.

The following terms are used in discussing ethical theories, concepts, and principles. A belief is a firm trust or confidence that an idea is true. A value is that quality of a thing, event, or action that makes it worthy of esteem. An attitude is a disposition or opinion; a habitual manner of acting, feeling, or thinking. Goodness is a state of virtue, excellence, or benevolence. A principle is a fundamental truth, or rule of right conduct to guide action. A moral principle is an action guide for protecting and promoting human interests. A concept is a general idea

about a class of items or events. A duty is a moral obligation that binds an individual to follow a particular line of conduct. A basic need is an element that is essential to living or functioning normally (Braybrooke, 1987). A right is a just and fair claim that one person may make on another for a power or privilege. A theory is a formulation of the apparent relationships among several principles underlying a phenomenon of interest. An ethical theory is an organizing set of moral standards for analyzing what is morally right and wrong in human action. Utility is the pleasure, satisfaction, or happiness that result from a particular action. An ethicist is a person who is prepared to reflect critically on issues of morality.

MEMO CAPSULE

Bases for Ethical Behavior

- **Belief:** Firm conviction
- **Value:** Deeply held preference, interest
- **Attitude:** Disposition or opinion
- **Concept:** General notion that encapsulates the meaning of a phenomenon
- **Principle:** Fundamental fact, rule, or law
- **Theory:** Organized set of interrelated principles to explain some aspect of reality

The decisions that direct a nurse's actions in patient care situations are embedded in her or his strongly held beliefs, values, and attitudes. In general, beliefs and attitudes develop slowly through personal experience and reflection on life's events. A long-standing belief that has motivated behavior over many years becomes so entrenched in memory and habit that the individual ceases to question the "truth" of that belief. A long-standing attitude that has filtered perceptions over many years becomes so enmeshed with personality attributes that the individual is unaware of the behavioral consequences of that attitude.

Health care science and technology are changing rapidly. Many nurses in current practice developed their professional values and beliefs before the advent of today's chemotherapy arsenal; diagnostic imaging techniques; dialysis techniques; immunotherapy procedures; and transplant, implant, and cancer surgery techniques. Beliefs and attitudes that arose during the more limited scientific, more expansive financial circumstances of the 1960s and 1970s may be unsuited to the expanded scientific and limited financial conditions of the 1990s.

UNIVERSAL MORAL PRINCIPLES

Ethicists have identified a set of universal moral principles for deciding the rightness or wrongness of human action. These basic moral principles are respect for autonomy; freedom; veracity (truth telling); justice (fair and equal treatment); nonmaleficence (avoiding harm to others); beneficence (doing good); rights; fidelity (fulfilling promises); confidentiality (protecting privileged information).

Autonomy

Autonomy is the right of individuals to govern their actions according to their own reason and purpose. Respect for autonomy requires that a person honor another's right to govern himself or herself. An autonomous action is one in which the agent acts intentionally, with an understanding of the situation and of the effect(s) of his or her action, and free of external controlling influences. Respect for another's autonomy is more than an approving attitude toward the other's self-governance; it requires treating the other in a manner that promotes his or her autonomous action (Beauchamp and Childress, 1989).

In biomedical ethics, the principle of autonomy decrees that patients be treated as autonomous decision makers, who are entitled to decide for themselves what will be done to their bodies. Ethicists claim that patients are entitled to three types of autonomy: freedom of action, freedom of choice, and effective deliberation

An example of freedom of action is the patient's right to leave the hospital against his or her physician's advice. An example of freedom of choice is the patient's right to obtain primary health services from either a physician or a nurse practitioner. An example of effective deliberation is the right of a rational patient to set appropriate health goals, to order the goals according to priority, to identify the best method for achieving each goal, and to act in a manner that maximizes goal achievement.

Mappes and Zembaty (1991) claim that patients' liberty of action is abridged by two types of coercion from caregivers. Occurrent coercion consists of the use of physical force, such as cloth or leather restraints, to restrict patient's movement. Dispositional coercion involves threat of harm, such as threats of possible health crises or abandonment by caregivers, to discourage patient's movement or action.

In addition to coercion, nurses can limit patient autonomy by lying, misinforming, and restricting the patient's range of care or treatment options. For example, when professional caregivers misinform a dying patient by telling him that his tumor was "benign" or was completely removed by surgery, x ray, or chemotherapy, they limit his freedom to settle his affairs in timely fashion; when professional caregivers inform a discharged stroke patient about opportunities for nursing home placement but withhold information about available rehabilitation and home health services, they restrict the patient's freedom to select the most appropriate type of continuing care. Lying, misinforming, and limiting treatment or care options are a major concern in biomedical ethics. Health care professionals enjoy a fiduciary (trust) relationship with patients and, so, are obliged to disclose all relevant facts for patient consideration.

The principle of autonomy requires that health personnel obtain a patient's informed consent for treatment and for participation in research. The following are required for a patient to give informed consent for either:

1. Disclosure: adequate presentation of relevant information about the proposed treatment or study
2. Understanding: adequate comprehension of the disclosed information
3. Voluntary agreement: free assent, uninfluenced by external controlling factors
4. Competence: adequate decision-making capacity (Meisel and Roth, 1981)

FREEDOM

The principle of individual freedom decrees that patients be exempt from control by others to select and pursue personal health goals. Nurses as a group believe that patients should have greater freedom of choice within the nation's health care system. That is, even in prepaid health systems, like HMOs, PPOs, Medicare and Medicaid systems, patients should be free to select a primary care provider, a medical or nursing specialist, a particular hospital, clinic, nursing home, or home health agency from which to receive care. However, some health care specialists doubt that people are ever really free to make choices and control their behavior.

Research has revealed multiple hereditary, social, and psychological influences on human behavior. Those who believe that all human actions are conditioned by forces external to the individual are known as "hard determinists" (Facione et al., 1991). Hard determinists claim that no one is free and that people cannot resist behaving as they do, because they have been conditioned to respond in specific ways to particular stimuli. However, philosophical libertarians deny that a person's behavior is externally controlled. Libertarians claim that each person has free will, which enables him or her to choose how to interpret events, to respond to others, or to behave under varying circumstances. Philosophical libertarians claim that, despite hereditary and environmental influences, some human choices are free, such as the decision to move from one environment to another in order to avoid undesirable influences.

The principle of individual freedom should be observed by staff nurses when planning patient care; by nurse managers when leading subordinates. A staff nurse who explores each patient's goals for care on admission to a health agency and implements those care measures most likely to achieve patient goals shows respect for patient freedom, despite the dependency needs provoked by the patient's illness. A vice-president of nursing who decentralizes management decision making to staff nurses shows respect for subordinates' freedom despite the constraints of bureaucratic structure.

VERACITY

The principle of truth telling requires professional caregivers to provide patients with accurate, reality-based information about their health status and care or treatment prospects. When informing a patient about his or her health status, available care measures, and likely outcomes of each, a professional caregiver is responsible for making her or his explanations accurate, complete, and comprehensible. Truth telling is an ethical concern for nurses, because truth is the basis for mutual trust between patient and nurse, and trust is the basis for a patient's hope of benefit from nursing services.

However, truth-telling may be difficult in a health care relationship. Some information that is transmitted from nurse to patient is depressing or frightening; and "bad news" about personal health status may compromise a patient's already limited physical and emotional resources. Another problem is the fact that medical terms carry different meanings for different people. Although the terms tumor, cancer, heart attack, stroke, and degenerative arthritis are frightening to most lay persons, professional caregivers know that some tumors are benign, some cancers respond well to treatment, many people survive a heart attack, rehabilitation can reverse functional losses associated with stroke, and degenerative arthritis is rarely crippling. Because hospital length of stay is decreasing, caregivers have less time now than formerly to in-

form patients about illness and treatment, assess patients' perception of health information, and correct patients' misunderstandings.

Another problem is the widespread belief that patients generally do not want to be told that they have a fatal disease. According to Bok (1978), from 15 to 25 percent of patients deny the true nature of their illness, despite having requested and received this information from caregivers. Kubler-Ross (1969) ascribes such denial to premature and abrupt provision of threatening information by a stranger/health professional who is also threatened by the information. Nurses and physicians are primarily motivated to save life and prevent suffering. Thus, many have difficulty accepting the fact that some patients cannot be healed. Informing a patient that his or her illness is fatal may be seen as admission of professional failure. To protect self-image, a nurse may unconsciously exaggerate favorable and minimize unfavorable signs and symptoms when informing a patient about his or her condition. Nevertheless, patients must have accurate information about their situation in order to choose appropriate care options. When tempted to screen a patient from unfavorable information about his or her health status, a nurse should analyze her or his own reaction to that information, which may be more negative than the patient's reaction.

Some ethicists differentiate lying from deception. Lying is uttering a falsehood, with intention to deceive. Deception is misleading or diverting another, to make him or her believe something that is not true. Thus, lying is an active, direct attempt to misinform and deception is an indirect, passive obscuring of truth. According to Ellin (1991) health care professionals have an absolute duty not to lie to patients, but they do not have a duty not to deceive—if the patient's health would suffer through full knowledge of his or her situation. Intentional deception (short of lying) consists of (1) a statement or action from which the deception target is expected to draw a false conclusion; and (2) failure to provide information

that would prevent the deception target from drawing the false conclusion. For some ethicists, deception seems less blameworthy than lying, because false information is not actually presented to the target. If the patient fails to adequately investigate his or her situation and jumps to a conclusion that is unwarranted by statements made by caregivers, he or she may be seen as participating in the deception. In drawing this distinction, some caregivers feel justified in concealing evidence of treatment failure or physical decline from dying patients. Others claim there is no difference between lying and deception from the viewpoint of the person deceived. Patients who are deceived, as well as those lied to, have been denied information that is needed for self-determination.

JUSTICE

The formal principle of justice directs that persons who are alike in morally relevant aspects be treated alike; and persons who differ in morally relevant aspects be treated differently (Facione et al., 1991). According to experts, characteristics over which a person has no control are not relevant when considering questions of justice. Therefore, differences of race, gender, birth order, and innate ability do not justify unequal treatment of individuals who differ in these characteristics.

Questions of justice relate to the fairness with which benefits and burdens are distributed among people. Present financial and personnel shortages make it impossible to provide the most technologically advanced, labor-intensive health measures to every citizen who might request them. When demand for hemodialysis, chemotherapy, plastic surgery, or organ transplant outstrips resources, health care providers and funders must decide which patients will receive treatment and which will not. Here the question of distributive justice arises. Nurses, together with other health care professionals, must decide which criteria to use in weighing conflicting claims for care, so that scarce resources are fairly distributed.

Over the years, various principles have been proposed to guide fair distribution of society's goods.

1. Each person should receive an equal share.
2. The amount given each person should be proportional to his or her need.
3. The amount given each person should be proportional to the amount of his or her work effort.
4. The amount given each person should reflect the value of his or her work product.
5. The amount given each person should reflect his or her value to society.
6. The amount given each person should be determined by free market exchange.

If principle 2 were to guide resource distribution, older, sicker, more compromised persons would be given higher quantity and quality health services than those with good health or minimal illness. If principle 5 were to guide resource distribution, leading scientists, charismatic leaders, and public-spirited philanthropists would be given higher quantity and quality health services than criminals and demented persons.

Questions of compensatory justice are raised when an individual or group has experienced undeserved health hazard or unfair distribution of health care in the past. Compensatory justice requires that an employer pay health care costs for an employee who suffers from an illness or injury that results from unsafe working conditions (e.g., as a non-smoker with respiratory problems resulting from passive smoking in the workplace).

Questions of retributive justice arise when one person or group has unfairly escaped burden or exerts undue hardship on another. Retributive justice is called for when an employer fails to correct a known safety hazard that later injures an employee, as when a nurse suffers an electrical burn from a diathermy machine with a frayed cord that was not removed from service following reports of malfunction.

NONMALEFICENCE

The principle of nonmaleficence indicates that the individual is morally obliged to avoid harming others. This principle is the basis for the oft-repeated medical and nursing maxim, "*Primum non nocere*." (First, do not harm.) This principle is included in the Hippocratic oath: "I will use treatment to help the sick according to my ability and judgment, but will never use it to injure or wrong them."

The nurse should interpret the term "harm" to mean emotional and social, as well as physical injury.

Harm is thwarting, defeating, or setting back one person's interests through invasive action by another. For example, when the principle of sanctity of human life guides health care decisions, the principle of nonmaleficence prohibits active and passive euthanasia by caregivers of terminally ill patients.

BENEFICENCE

The principle of beneficence dictates that a person is obliged to help others to advance their legitimate and important interests. This principle is basic to biomedical ethics, because a patient's illness or injury renders him or her dependent on health professionals for lifesaving and comfort-promoting assistance. Beauchamp and Childress distinguish two principles under the general principle of beneficence:

1. Providing benefits that enhance the other's welfare
2. Balancing the benefits and harms of interventions made on the other's behalf

Professional education provides an awareness that most nursing interventions are capable of producing undesirable, as well as desirable, patient outcomes. Therefore, in planning patient care, the nurse is obliged to ascertain each care measure's likelihood of success and balance the measure's probable benefits and risks in order to select interventions that maximize patient welfare.

Most ethicists claim that the principle of non-

maleficence takes precedence over the principle of beneficence. In other words, there is a moral obligation to avoid deliberate harm to another, but no moral requirement to act beneficently toward another in specific circumstances.

RIGHT

Ethical discussions are sometimes confusing, because the word right has more than one meaning. A right is an entitlement to behave in a certain way under certain circumstances, such as a nurse's entitlement to freely express personal beliefs and preferences by voting in a political election. Another right is the prerogative to define another's behavior in selected situations, such as a manager's prerogative to give assignments to a subordinate. A right is also a just claim to a specific good, service, or perquisite, such as a nurse's just claim to a 15-minute rest break sometime during a work shift. "Right" is also used to mean agreement with justice, law, and morality.

Often, the right of one person imposes a correlative obligation on another. When a person has a right or entitlement to behave in a particular fashion or possesses a particular good, others have a concomitant obligation not to block his or her behavior or possession.

Rights, as entitlements, are divided into conventional and moral rights. Conventional rights are entitlements that derive from conventional structures, such as the legal system or popular culture. The right to contract for services, become licensed to practice nursing, or bring suit against an employer are conventional rights. Moral rights are entitlements that derive from human nature and are independent of environmental circumstances. The right to life, liberty, and pursuit of happiness are moral rights, because they are entitlements of all people, everywhere, regardless of the culture or legal system in which they live.

FIDELITY

The principle of fidelity holds that a person should faithfully fulfill his duties and obliga-

tions. Fidelity is important in a nurse because a patient's hope for relief and recovery rests on evidence of the caregiver's conscientiousness.

CONFIDENTIALITY

The principle of confidentiality provides that caregivers should respect a patient's need for privacy and use personal information about him or her only to improve care. Nurses should practice confidentiality to decrease patient vulnerability and shame from widespread knowledge of personal information divulged during care.

MEMO CAPSULE

Moral Principles

- Facilitate autonomy: Promote individual freedom
- Veracity: Tell the truth
- Justice: Treat people equitably.
- Nonmaleficence: Avoid injuring others.
- Beneficence: Do good for others.
- Fidelity: Fulfill promises.
- Confidentiality: Protect privileged information
- Right: Act in agreement with justice, law, morality.

APPROACHES TO ETHICAL DECISION MAKING

There are three possible approaches to ethical decision making: descriptive ethics, normative ethics, and metaethics. Descriptive ethics is the study of the ways in which people actually behave. Normative ethics is the study of the criteria that must be met for a behavior to be "good." Normative ethics includes two divisions: norms of value, which deal with moral values and worthy goals; and norms of obligation, which deal with people's duties for right behavior toward others. Metaethics is a study of the language and logic used in thinking about ethical issues (Frankena, 1973).

Davis and Aroskar (1991) claim that normative ethics provides the best approach for de-

ciding what is a "right" and "wrong" nursing action for a patient in a particular situation. Normative ethics encompasses two schools of thought: deontological ethics and teleological ethics.

Deontological ethics is based on the notion that certain fundamental duties and obligations prescribe "right" conduct. These fundamental obligations include a duty to tell the truth; to fulfill promises; to repay debts; to protect the weak; to honor one's parents; to respect others' property, and so on. According to deontological thought, the rightness of an act depends on its agreement with a fundamental duty or obligation, rather than the act's good outcomes. Examples of deontological ethical theories are Kant's theory of the categorical imperative and Ross's theory of *prima facie* duties.

Teleological ethics, or consequentialist ethics, is based on the notion that the rightness or wrongness of an action is determined by its consequences. In this view, no action is inherently right or wrong. The moral worth of an action can be determined only by weighing the consequences of the act for all who are affected by it. Examples of teleological ethical theories are Mill's theory of utilitarianism and the theory of ethical egoism.

According to Mappes and Zembaty (1991), four criteria should be used to assess the value of competing ethical theories:

1. Degree of internal consistency: The compatibility and coherence of concepts, principles, and precepts embodied in the theory
2. Degree of simplicity: The existence of direct, clear relationships among the theory's concepts, principles, and conclusions
3. Extent to which implications of the theory agree with personal experiences of morality
4. Extent to which the theory provides effective guidance in situations where substantive moral arguments are advanced on both sides of an issue

Because individuals differ about their per-

sonal experiences of morality and their needs for moral guidance, it is likely that, even using these criteria, they will disagree about the value of different ethical theories. Of several theories of morality, Mill's utilitarianism (a teleological, or results-based, theory) and Kant's categorical imperative (a deontological, or rule-based, theory) have most often been applied to health care concerns.

Utilitarianism

The theory of utilitarianism posits that a moral act yields the greatest possible amount of good, the least possible amount of bad, or the best possible ratio of good to bad consequences. In other words, no act is right or wrong by its nature, but only by its effects on individuals. In weighing an act's good and bad consequences, the decision maker should put aside personal feelings and apply the standard for judgment impartially. The theory of utilitarianism can be applied in two forms: act utilitarianism and rule utilitarianism.

Act utilitarianism consists of considering the good and bad consequences of each act. Rule utilitarianism consists of considering the good and bad consequences of a particular rule and the type of acts generated by it. An act utilitarian perceives such a rule as "Tell the truth" as a rule of thumb that provides general guidance but is not a binding prescription for action. A rule utilitarian perceives any behavioral rule as binding and will not accept that an act is right simply because it has good consequences (Beauchamp and Childress, 1989).

The principle of universalizability requires that everyone be bound by a specific duty or rule. This principle can be applied in both deontological and teleological ethics. In deontological ethics, everyone has a duty to tell the truth, whether or not the consequences of truth telling differ for individuals. In teleological ethics, the rightness or wrongness of a policy about surrogate decision makers depends on the consequences to all patients and surrogates of implementing the policy.

Kant's Categorical Imperative

Kant, an eighteenth-century German philosopher, claimed that a single, fundamental principle is the basis for all moral obligation: One should act only on that maxim that one can intend should become a universal law. From this fundamental principle, Kant derived additional principles, such as the following.

1. Act in such a way that you always treat humanity, whether your own or that of another, never simply as a means but always as an end.
2. One's duties to self and to others are of two types: perfect and imperfect.
3. Perfect duties are binding in all circumstances. (Examples: one may not treat another merely as a means; one may not kill an innocent person; one may not lie.)
4. Imperfect duties require the individual to pursue certain goals, but these goals may never be pursued at the expense of a perfect duty. (Examples: one has an imperfect duty to develop one's talents; one has an imperfect duty to commit oneself to further the happiness or welfare of others.)

The applications of Kant's categorical imperative to biomedical ethics are numerous. Because the nurse has a perfect duty not to lie, it would be unethical to administer a placebo. Because the nurse has a perfect duty not to use another merely as means, the nurse researcher must avoid pressuring patients to participate in research studies, regardless of possible later benefits to humanity in general. Because the nurse has an imperfect duty for beneficence—that is, must act beneficently on occasion but is not obliged to act beneficently on any specific occasion—he or she is not morally obliged to come to the aid of an injured person at the site of a vehicular accident on the highway (Mappes and Zembar, 1991).

ETHICAL CODES

In 1949 the Allies developed the Nuremberg Code on Ethics in Medical Research. This code

enunciated the standards that were used to judge the practices of Nazi physicians and officials who implemented medical experiments on concentration camp prisoners and sterilization and euthanasia procedures on incurably ill and feeble-minded individuals. The Nuremberg Code declares that, for an experiment on human subjects to be morally acceptable, the following criteria must be met.

1. The subjects must have sufficient comprehension of the experiment and be free of constraint or coercion to be able to give informed, voluntary consent for participation.
2. The experiment should be one that will yield results of value to society that are unprocurable by other methods.
3. The experiment should be based on existing knowledge and results of animal experimentation, so that anticipated results will justify performance of the study.
4. The experiment should be conducted to avoid unnecessary physical and mental suffering and injury for subjects.
5. No experiment should be implemented when there is prior evidence that subjects would be liable to death or disabling injury.
6. The amount of risk imposed on subjects should be less than the humanitarian value of solving the problem under investigation.
7. Provisions should be undertaken to protect subjects from even the remote possibility of injury, disability, or death.
8. The experiment should be conducted by scientifically qualified researchers.
9. Subjects should be free to withdraw from the experiment at any point.
10. The researcher should terminate the experiment at any stage if there is evidence that continuing the study is likely to result in injury, disability, or death of a

subject (*Trials of war criminals before the Nuremberg military tribunals*, 1948).

In 1964, the World Medical Association adopted an ethical code, termed the Declaration of Helsinki, to guide physicians in the use of human subjects for biomedical research (World Medical Association, 1968). This code repeated some tenets of the Nuremberg Code and added others.

1. Biomedical research on human subjects should be based on accepted scientific principles, prior animal experimentation, and thorough knowledge of relevant scientific literature.
2. The design and procedure for each experiment using human subjects should be reviewed by an independent committee, for evaluation, approval, and guidance.
3. An experiment involving human subjects should be conducted by a qualified researcher under supervision by a competent medical authority.
4. For a biomedical research study to be approved, the import of study outcomes should exceed the potential of risk to subjects.
5. Each potential subject must be informed of the study's aims, methods, expected benefits, and potential risks and must be told that she or he is free to abstain from the study and to withdraw consent to participate at any time.
6. A research study should be preceded by careful assessment of predictable risks, and the subject's interests must prevail over the interests of science and society.
7. Every precaution should be taken to respect the subject's privacy and to minimize the study's impact on the subject's physical and mental integrity.
8. In case of a potential subject's legal incompetence, informed consent should be obtained from the subject's legal guardian.

Provisions of the Nuremberg Code and Declaration of Helsinki provide the basis for institutional policies and regulations governing research on human subjects. Therefore, nurse researchers, as well as researchers from other health disciplines are expected to abide by them.

MEMO CAPSULE

Research Ethics: World Medical Association

- Studies based on accepted science and animal experimentation
- Study design and procedures reviewed by independent committee
- Research on humans performed by a qualified researcher
- Importance of research outcomes exceed risk to study subjects
- Subjects told aims, methods, risks, and benefits of proposed study
- Subjects free to withdraw consent for participation at any time
- Study procedures protect patients' privacy, dignity, and welfare

The hallmark of a learned profession is a tendency for self-regulation. Accordingly, it is customary for each professional group to develop a Code of Ethics to guide members toward right conduct during practice of their calling. The fifth-century B.C. Hippocratic oath provided standards for appropriate physician behavior that described the appropriate relationship between a physician, his teachers and students and prohibited aiding a suicide, performing abortion, divulging confidential patient information, and sexual misconduct with patients. In the nineteenth-century A.D., the American Medical Association developed a code of medical ethics, a recent revision of which eliminated an earlier paternalistic attitude toward patients and emphasized members' responsibilities to expose in-

competent and immoral actions by other physicians (Darr, 1984). Recent social, cultural, and technological changes have caused some present-day physicians and lay persons to believe that it is appropriate for physicians to perform abortions and assist with suicide in selected situations.

The American College of Healthcare Executives (ACHE) has developed a Code of Ethics to guide their members' occupational behavior. This code has become increasingly detailed and specific through several revisions since 1939. A recent revision addresses some biomedical issues, such as life-continuation decisions and patient's autonomy rights, as well as such administrative issues as handling confidential information; conflict of interest; resource allocation; ethical advertising; and medical staff-governing body relationships (Darr, 1984).

The ANA first developed a Code of Ethics for Nurses in 1976. The preamble for the 1985 revision of the ANA Code indicates that nurses' decisions and actions should be rooted in the universal moral principles of respect for persons, autonomy, beneficence, nonmaleficence, veracity, confidentiality, fidelity, and justice. The following tenets, each accompanied by an interpretive statement, are among those included in the 1985 version of the Code for Nurses (American Nurses' Association, 1985).

1. **Respect for human dignity:** Requires use of reasonable means to preserve human life when there is hope of recovery or benefit; imposes duty of truth telling to facilitate patient's informed choice of care measures; necessitates delivery of care without prejudicial behavior; permits nurse's refusal to participate in care/treatment interventions to which (s)he is ethically opposed, if refusal is made enough in advance to permit alternative care arrangements.
2. **Safeguard patient's right to privacy.** Requires that appropriate patient data be shared with members of the health care team; necessitates obtaining patient consent to use information from the patient record for research or non

clinical purposes; permits appropriate sharing of patient information when innocent parties are in jeopardy

3. **Safeguard client's health and safety from incompetent, unethical practice of any person:** Includes expressing concern to the person carrying out a questionable practice and to the responsible administrator; requires participation in planning, implementing, and reviewing monitoring procedures needed to safeguard clients.
4. **Accept responsibility and accountability for own nursing judgments and actions.** Requires collaborative interaction with client during data gathering, assessment, diagnosis, care planning, care implementation and evaluation, imposes duty to provide explanation or rationale to appropriate others for conclusions reached and actions taken
5. **Maintain competence in nursing:** Requires continuous professional learning; requires cooperation with peer assessment; imposes expectation of consultation with others possessing expertise needed to solve clinical problems.
6. **Use informed judgment in accepting responsibilities, seeking consultation, delegating duties to others.** Requires refusal to perform functions for which (s)he lacks requisite knowledge or skill; necessitates awareness of personal capabilities and shortcomings; requires evaluation of subordinate's abilities before delegating additional tasks and responsibilities.
7. **Participate in activities which expand nursing's scientific basis for practice:** Imposes duty of ongoing scholarly activity; requires vigilance in protecting rights of human subjects necessitates determining the purpose, procedure, and approval status of a research study prior to participating in the study
8. **Assist in improvement of nursing standards** Requires conscientious implementation of existing standards, necessitates daily monitoring of established standards by all clinical nursing personnel, including students
9. **Assist in maintaining satisfactory standards of employment:** Requires maintaining a practice climate which promotes professional autonomy; permits participation in collective bargaining through the state nursing associ-

MEMO CAPSULE

ANA Code for Nurses

- Preserve human life whenever there is hope of benefit.
- Safeguard patient's privacy.
- Protect patient from incompetent, unethical caregivers.
- Accept accountability for professional judgments and actions.
- Participate in continuing professional learning
- Contribute to expansion of nursing's scientific base
- Help to formulate and monitor nursing practice standards.
- Promote satisfactory employment standards for nurses.
- Protect public from misinformation.

ation to establish employment conditions which support high quality nursing care.

10. **Help to protect public from misinformation and misrepresentation:** Requires advising clients against use of products harmful to their welfare; imposes duty to refrain from endorsing specific advertisements, promotions (pp. 1-16)

ETHICAL DILEMMAS FOR NURSES

Increasingly, staff nurses and nurse managers face difficult decisions caused by tensions between technological capabilities, budgetary strictures, and quality-of-life concerns. Nurses in all clinical and functional specialties face the following ethical dilemmas:

1. Need to ration patient care to conserve scarce resources
2. Need to make treatment and care decisions for terminally ill patients
3. Need to obtain patient's informed consent for care and treatment orders and measures, such as:
 - a. Do not resuscitate order
 - b. Withholding/withdrawing nutrition and fluids

- c. Starting discontinuing life-support systems
- 4. Response to patient request for assisted suicide
- 5. Need to balance the patient's need for confidentiality and privacy against society's need for protection from unreasonable risk
- 6. Need to protect autonomy rights of children and incompetent adults concerning consent for research participation
- 7. Need to protect justice rights of patients who participate in random trials of experimental treatments

Ethical decision making is needed in all steps of the nursing process and all phases of the nursing management process. A clinical nurse must continuously balance rights of individual patients against the welfare of patient groups and society as a whole. When a staff nurse's time and energy are limited, she or he must plan and administer care to a group of patients so as to balance the principle of social utility (greatest good for greatest number of patients) with the principle of respect for patient autonomy (honoring the wishes and needs of individual patients). When distributing scarce personnel and material resources among several nursing units or specialties, a nurse manager must balance the principle of justice (treat those who are alike in morally relevant aspects in similar fashion) with the principle of nonmaleficence (do no harm).

Rationing Nursing Care

For most health agencies, the present nurse shortage has created marked disparity between nursing resources and the level of demand for nursing services. In many facilities there are too few professional nurses to administer increasingly complex care for patients with increasing acuity levels. When patient demand for care exceeds nursing resource supply, nursing care must be rationed, or distributed sparingly according to some allocation principle.

According to Mechanic (1979), health care can be rationed by three methods: market rationing, explicit rationing, and implicit ration-

ing. Market rationing occurs at the societal level through availability of health manpower and national health policy, such as Medicare and Medicaid legislation. Such legislation determines who is qualified to receive what services under what conditions and for what time. Explicit rationing occurs when health agency administrators, rather than health care professionals, determine what health services will be available to particular patients or patient groups. A hospital's board of directors and CEO decide what clinical services will be offered by the facility and how many "free care" patients will be admitted. Implicit rationing occurs when nurse managers and staff nurses deflect nursing resources from one patient or group in order to increase services to another patient or group. A vice-president of nursing who decreases staff nurse positions in a geriatric nursing unit to increase staff nurse positions in a high-risk newborn nursery is practicing implicit rationing, as is a rehabilitation staff nurse who limits the time spent in caring for an elderly poststroke patient to devote increased time to care for a 20-year-old paraplegic patient.

Whenever nursing care is rationed, involved nurses should identify the criteria to use in determining each individual's or group's entitlement to scarce resources. In the foregoing examples, patient age was the criterion for allocating different quantities of service to different patient groups. The vice-president of nursing and staff nurses described transferred nursing resources from care of geriatric patients to care of infants and young adults. Some ethicists have proposed age as a criterion for terminating treatments, as well as for rationing care. David Callahan (1987), the director of the Hastings Center, proposed that for persons who have lived out a natural life span (those in their late seventies or early eighties), health care should no longer be oriented toward resisting death but should be limited to relief of suffering. Other ethicists reject age as a criterion by which to ration health care, fearing that such practice would accentuate Americans' tendency to devalue and reject older citizens (Childress, 1984).

The principle of beneficence includes preventing harm as well as doing good for others. When this principle is followed in rationing health care, the staff nurse or nurse manager must ensure that patients in jeopardy are protected from increased risk of harm when nursing resources are more sparingly allocated to them. For example, a rehabilitation staff nurse or manager should not decrease the frequency of patient turns or prompted voiding for geriatric stroke patients in order to conserve nursing time, because such economies would undoubtedly increase the incidence of incontinence and skin pressure ulcers in elderly patients.

One interpretation of the justice principle is that the amount of health care given each client should be proportional to his or her need. The principle of compensatory justice holds that persons or groups who have experienced undeserved health hazard through unfair distribution of health services in the past should be compensated by receiving disproportionately greater amounts of health services in the present. When this principle is followed in rationing health care, a greater proportion of available nursing resources would be spent for nursing care of destitute patients whose chronic health problems result from their inability to afford health prevention and early treatment than for middle-class or affluent patients with the same illness severity who have received the full range of preventive and curative treatment throughout their lifetime.

Quality-of-life concept to ration care

Some health professionals decide for or against treatment of incurably and terminally ill patients (apportion health care resources) according to the patient's presumed "quality of life" (Kuhse, 1987). Unfortunately, quality of life has been defined in multiple ways by different caregivers (Oleson, 1990), so that members of a patient's multidisciplinary care team may disagree about what would be appropriate care for a person in the patient's situation.

To remedy this problem, Klempell (1991) an-

alyzed the concept of quality of life. The analysis identified the following defining characteristics for the quality-of-life concept:

1. Perception of well-being
2. Satisfaction of needs
3. Overall experience of life
4. Fulfillment of personal goals
5. Social utility or worth of life
6. Overall condition of life
7. Individualistic view of life
8. General happiness
9. Balance between established and achieved goals
10. Health-related functions
11. Possession of potentialities for personhood

It is interesting that of the 11 defining characteristics of quality of life, two are clearly health related (perception of well-being and health-related functions), three are presumably health related (overall experience of life, overall condition of life, and possession of potentialities for personhood), and six seem more related to social, personality, or spiritual factors than to health factors (satisfaction of needs, fulfillment of personal goals, social utility of life, individualistic view of life, general happiness, and balance between established goals and achievement of goals). Thus, if health professionals use a patient's presumed quality of life to decide for and against specific health care measures and define quality of life according to these characteristics, nurses must extend patient assessment to acquire data beyond the signs and symptoms of illness.

Regardless of the definition used, professional caregivers should develop valid and reliable methods for measuring patients' quality of life before that concept is used as a criterion for resource allocation. A variety of methods have been used to measure patients' quality of life (Cantril, 1965; Cox et al., 1991; Ferrans and Powers, 1985; Hunskaar and Vinsnes, 1991; LaPuma and Lawlor, 1990; Ruchlin and Morris, 1991). Bigelow et al. (1991) defined

quality of life to include the ability to fulfill personal needs, to meet social expectations, and to access opportunities through personal capabilities. These researchers developed a 26-item questionnaire for measuring the impact of mental health services on clients' quality of life. The questionnaire included scales to measure psychological distress; well-being; ability to cope with stress; basic need satisfaction; independence; interpersonal interaction; spousal role; social support; employability; work at home; work on the job; meaningful use of leisure; and negative effects of alcohol and drug use. Although the internal reliability of some test scales was low, researchers concluded that the questionnaire was a valid measure of quality of life for clients of mental health services.

Kaplan et al. (1991) interviewed a random sample of 1,034 San Diego residents about mobility and physical and social activities; they then combined these data with standardized mortality rates, utility weights, and prognoses to determine each subject's quality of well-being. Study results revealed that women lived longer than men and that they experienced greater degrees of physical and psychological illness. If quality-of-life measures obtained through this method were used to determine patients' care or treatment measures, the principles of justice and beneficence would be offended. Justice requires that persons alike in morally relevant aspects be treated alike. However, characteristics over which a person has no control, such as sex, should have no bearing on distribution of society's goods. Therefore, women should be protected from the risk that their lower quality-of-life scores would qualify them for less volume or lower-quality health care than males.

Hunskar and Vinsnes (1991) used interviews and a questionnaire to measure sickness-related dysfunction in everyday life for women treated in an incontinence center. Study results revealed that urinary incontinence lowers quality of life for women, and urge incontinence lowers quality of life to a greater degree than

stress incontinence. Again, the principle of justice would be offended if patients' quality of life, as measured by this method, were the sole basis for deciding to implement or discontinue care for elderly females. Justice demands that society's goods be distributed equitably among citizens, without regard for differences over which the individual has no control. Because women cannot control the etiological factors that cause urge and stress incontinence, health services should not be apportioned differently among patients whose different quality of life scores can be accounted for by different types of incontinence.

Ruchlin and Morris (1991) measured seven variables to determine quality of life in community living elders: sex, marital status, self-assessed health status, functional status, self-assessed financial status, and work status. These researchers detected higher quality of life ratings for young elderly (65–74) who were employed than for those who were unemployed. If quality-of-life scores obtained through this method were used in deciding whether to implement or discontinue treatment for chronically ill elders, the principle of justice would be offended. Some elders are unemployed because of the policies of their former employer (some institutions prohibit executives and administrators from retaining their positions beyond the age of 65). Some elders are unemployed, because the physical demands of their accustomed job exceeds an older person's usual strength and stamina levels (loss of strength and agility forces earlier retirement for manual laborers than for white collar workers). Here again, factors beyond the individual's control, as well as personal choice, determine a person's date of retirement. If health care decisions are made on the basis of patients' perceived quality of life, care should be taken to protect unemployed elders from unfair limitation of health services consequent to their diminished quality of life.

In an effort to facilitate the measurement of health care outcomes, experts have developed the concept of "quality adjusted life years." A

quality adjusted life year (QALY) is a numerical description of the value that a health care procedure or service can provide to a group of patients with similar medical conditions (LaPuma and Lawlor, 1990). This measure is intended to combine the expected length of survival with the expected quality of life in a single number. If an additional year of healthy life has a value of Y , then an additional year of unhealthy, or less healthy, life would have a value of $Y - X$ (X represents the amount of diminished life quality during the additional life year). Experts have proposed that QALYs be used to measure the cost-effectiveness of specific treatment measures in different patient populations. Because elders have fewer expected years of life than younger patients, any treatment measure would produce fewer QALYs for an older than a younger adult with the same disease and same chance of treatment success. Those who advocate QALYs as guidelines for resource allocation are motivated by the theory of utilitarianism (greatest good for the greatest number of patients thanks to the wise expenditure of scarce resources). Others claim that using QALYs to determine health care distribution would allow the principle of justice (fair distribution of goods) to outweigh the principle of autonomy (honoring individual wishes and needs). Perhaps the most serious objection to using QALYs to guide health resource distribution is the difficulty in measuring patients' quality of life. Studies show that both health professionals and fam-

ily members are inaccurate in estimating quality of life of chronically ill elderly (Darus et al., 1988; Uhlmann and Pearlman, 1991; Zweibel and Cassel, 1989).

Treatment Decisions for the Incurable Terminally Ill

Deciding appropriate treatment for the terminally ill is difficult, both because of quality-of-life concerns and because people disagree about definitions of life and death. The traditional definition of death—the cessation of respirations and of cardiac contractions—is no longer useful. In this era of sophisticated medical technology, death is no longer a natural, inevitable event. A patient whose upper (cerebrum) and lower (brainstem) brain have permanently ceased to function, although irreversibly comatose, may have heart beat and respirations maintained for a long time by mechanical respirators, pacemakers, and associated life-support systems. Furthermore, patients with irreversible damage to the higher brain whose brainstem vital centers continue to function may live for years in a persistent vegetative state, even without respirator and pacemaker support if provided with artificial nutrition and fluids and scrupulous nursing care.

Incurable terminally ill patients who are mentally competent may refuse any or all treatments proposed by caregivers, so long as their refusal does not seriously harm or burden others (President's Commission, 1982). When an incurable terminally ill patient becomes mentally incompetent, the treatment team is obliged to rely on the patient's predated or presumed wishes concerning treatment (Flynn and Davis, 1990). This task is much simplified when the patient has registered his or her wishes and intentions for treatment at the end of life through advance directives while he or she is still competent. Of course, such advance directives must be readily available to treatment team members; ideally as part of the patient's medical record.

Experts disagree whether whole-brain impaired and higher-brain impaired individuals

MEMO CAPSULE

Quality of Life

- Ability to fulfill personal needs. Need satisfaction, happiness
- Ability to meet social expectations. Value to society, health-related functions
- Ability to use available opportunities: Personhood; relation of desired to achieved goals

are alive or dead. Therefore, in 1968, a committee of Harvard Medical School experts recommended a set of tests to use in identifying a permanently dysfunctional whole brain, claiming that when this condition has been identified, life-support systems should be discontinued (Mappes and Zembaty, 1991). Although many experts agree with the Harvard Medical School proposal that "whole-brain dead" patients be allowed to die through discontinuation of life support, there is less agreement about treatment of higher-brain dead patients. Because patients in persistent vegetative state can live 5, 10, or 20 years at considerable financial and personal expense to their families and the nation, some approve discontinuing life support for higher-brain dead patients in persistent vegetative state (Crawford, 1988). Culver and Gert (1982, claim that a patient in persistent vegetative state is not dead, though incapable of personhood, so they advise against discontinuing such treatment as artificial nutrition and fluid.

Life-sustaining measures can be seen as extending on a continuum from mechanical respiration and renal dialysis through antibiotics, blood transfusions, and intravenous fluids, to gastrostomy feedings. Even those professionals who define death as irreversible higher-brain dysfunction and approve discontinuing mechanical respiration for patients in persistent vegetative state disagree about discontinuing artificial nutrition and fluids for these patients. This difference of opinion arises from different interpretations of "ordinary" and "extraordinary" treatment measures. For many health workers, a treatment that is simple, noninvasive, and inexpensive is seen as "ordinary" whereas one that is complex, invasive, and costly is seen as "extraordinary" (Beauchamp and Childress, 1989). One expert recommends that all medications, treatments, and surgical procedures that offer reasonable hope of benefit, without excessive cost, pain, or other inconvenience, be considered ordinary (Ramsay, 1970). Most lay people and health professionals consider elec-

tronic cardiac pacing and mechanical ventilation "extraordinary" treatment measures. However, food and fluid are considered basic to life; and provision of food and fluids is a component of numerous family and social customs. Consequently, denial or withdrawal of food and fluids from weakened, dependent persons are seen as unacceptable practices, especially by members of a caring profession (Wutzbach, 1990).

A further problem is the fact that some health care professionals who agree with withholding artificial nutrition and fluids from a patient in persistent vegetative state are reluctant to withdraw this treatment once it has begun. Unfortunately, intravenous or gastrostomy feedings are implemented for many patients before the patient is declared brain-dead.

Numerous ethical problems develop around the issue of DNR (do not resuscitate) orders. A DNR order for a patient provides that in the event of acute cardiac or respiratory arrest no cardiopulmonary resuscitation measures will be initiated. A DNR order may be written at the patient's request, or family's request for an incompetent patient, when the patient or proxy decision maker decide that the patient's diminished life quality argues against prolongation of life. A DNR order is needed if a patient is to succumb naturally to acute cardiac or respiratory failure, because cardiopulmonary resuscitation is the only medical treatment that health workers are expected to implement without a physician's order (Sharp and Frederick, 1989). For many terminally ill patients CPR merely extends the process of dying, as evidenced by the fact that only 5 to 20 percent of hospitalized patients given CPR live long enough to be discharged (Bedell and Delbanco, 1983). When the patient, family, and treatment team decide that death is imminent, unavoidable, even desirable, the physician should write a DNR order on the patient's chart. To protect patients, families, and caregivers from confusion, misunderstanding, and conflict, each health agency should establish separate policies for DNR orders and for withdrawal of treatment measures. If, despite

agency policies, conflict over the DNR order develops among patient, family members, and professional caregivers, the issue should be referred to the agency's ethics committee for review and advice (Sharp and Frederick, 1989).

Sometimes a terminally ill patient whose dying is prolonged by mechanical and medicinal interventions seeks relief from suffering by asking medical or nursing caregivers for help in committing suicide. Ethicists disagree about the morality of suicide. Kant categorically condemned suicide as immoral, regardless of circumstances (Kant, 1785/1960). According to him, life is completely conditioned by the body, so man cannot use his freedom except through bodily functioning. Therefore, to use one's free will to destroy the instrument of one's free will would be contradictory and wrong. On the other hand, Brandt (1975) claims that, although one has an obligation to refrain from suicide if that act would injure another, there are some situations in which suicide is morally acceptable.

Euthanasia is the process of causing the painless death of another for the purpose of relieving suffering. Some ethicists differentiate between passive euthanasia, which consists of not doing anything to prolong life or letting the patient die, and active euthanasia, which consists of taking action to bring about a patient's death (Sullivan, 1977). Nurses, as well as physicians, have been asked to perform both passive and active euthanasia. Patients have told nurses to refrain from cardiopulmonary resuscitation in the event of cardiac arrest or to turn off a respirator, discontinue gastrostomy tube feedings, or give an overdose of analgesic, sedative, or hypnotic. The morality and legality of assisted suicide is under debate in several sectors of society. Recently the Iowa College of Law drafted a model Aid-in-Dying Act, which, if passed, would allow patients and their legal surrogates to demand active aid in dying from professional caregivers (Johnson and Weiler, 1990). If changes in law and public opinion make it possible for patients to request euthanasia from the

health care team, nurses will be expected to participate in these procedures (except for those who declare themselves conscientious objectors). In preparing for this eventuality, nurses should design policies and procedures for documenting a patient's request for euthanasia and assessing the motives of a patient's surrogate who requests euthanasia for a patient. Nurse managers should develop procedures for documenting a staff member's intention to avoid participation in euthanasia procedures and for counseling nursing staff members who have not yet decided their position on the issue.

Obtaining Informed Consent for Treatment and Research

The requirement for informed consent is grounded in the principles of autonomy and nonmaleficence. The principle of autonomy (honoring the individual's right to be self-directing) holds that patients have a right to (1) accurate and complete information about any treatment or study they are asked to take part in; and (2) freedom to accept or refuse the proposed treatment or study without being subjected to external pressure (Davis and Aroskar, 1991). The principle of nonmaleficence holds that health care providers have an obligation not to harm others. Many treatment measures and experimental interventions are either unpleasant, stressful, or painful. Therefore, health workers are obliged to avoid imposing these "harms" on a patient without his or her full and free permission.

Securing informed consent for treatment or research is difficult under the best of circumstances, (i.e., when consent is sought from a mature, mentally competent adult). It is impossible to obtain informed consent from a child or a mentally incompetent adult, because neither can become fully informed about the proposed treatment or study.

According to Ramsay (1989), experimentation with a human subject that provides no direct benefit to the subject is never ethically justified, unless the subject has freely and knowl-

edgeably agreed to participate. Young children are incapable of giving informed consent. Therefore, Ramsay claims that children should never be involved in a study that affords no benefit to the child.

Others argue that, because life and health are natural goods, children as well as adults have an obligation to advance and preserve them. McCormick (1974) believes that children, like adults, have a duty to contribute to the welfare of society by participating in research that affords minimal or no risk—even when the study affords no direct benefit to the child. Furthermore, McCormick considers the parents' proxy consent for their child's participation in research as a reasonable presumption of the child's wishes—if he or she were mature enough to consent.

MEMO CAPSULE

Ethical Dilemmas

- Start gastric feedings on upper-brain dead patients?
- Discontinue respirator on comatose, terminally ill patient?
- Administer a dose of analgesic that will depress respirations of a dying patient?
- Ask a surrogate's consent for research on an incompetent adult?
- Ask parents' consent for research on a child who will not benefit from the study?

Confidentiality and Privacy Concerns

Nurses may encounter ethical dilemmas associated with their duty to ensure confidentiality of patient information. Concerns about confidentiality derive from the individual's constitutional right to privacy. The right to privacy is the right to keep undocumented personal information about oneself from the possession of others. Respect for a patient's privacy is based

on respect for the patient as a person (Callahan, 1988).

A large volume of highly personal information is gathered by various health care workers and recorded on the patient's medical record for use by other members of the patient's care team. It is appropriate for multiple caregivers to possess personal information about the patient only when the information is needed and used to enhance the patient's care.

Unfortunately, widespread computerization of patient charts has made highly personal patient information available to a variety of persons, both inside and outside the health agency, who have no responsibility for the patient's care: employees of the business office, computer services, and administrative offices; personnel in other nursing units and clinical departments; insurance claims handlers, and so on. A physician in one Midwest hospital discovered that from 25 to 100 health professionals and administrative personnel had access to the patient's chart and had a valid need for some portion of the information contained therein (Siegler, 1982). Where so many have access to the patient's medical record, it is difficult, but necessary, to restrict patient information to those who need to know and ensure that information is used for the patient's benefit.

SUMMARY

The professional level of nursing practice is as firmly grounded in moral concepts as in scientific understandings. To display the right conduct in value-laden, complex patient care situations, a nurse must employ the principles of autonomy, justice, equality, veracity, nonmaleficence, and beneficence. To weigh the statements and arguments of health industry authorities who hope to sway nurses' attitudes and behaviors, a nurse must understand the basic premises of deontological (rule-based) and teleological (results-based) ethical theories. To model right conduct for other health care workers and students, the nurse must continuously

RESEARCH BRIEF

Ethical Decision Making

Purpose: Determine what nurses identify as their responsibility for resolving an ethical dilemma.

Sample: Seven hundred fifty-five senior baccalaureate nursing students from 16 schools

Method: A case presentation of an ethical dilemma was developed by the investigator and refined by experts. In each school, the senior class was divided into RN and generic students, and these factions were further divided into groups of five. Each group was given the case presentation, participant data sheet, and participant instructions. The group was to read the case and decide, as a group, what action the nurse should take to solve the dilemma. Then they were to assume that the action did not succeed and decide what to do next, recording each decision and proceeding in this fashion until they exhausted all reasonable courses of action. The group decision record and participant data sheets were returned to the investigator, who classified the decisions as: (1) patient centered; (2) physician centered; (3) bureaucracy centered; or (4) other.

Findings: One hundred forty-six small groups in 16 schools produced a total of 1,163 decisions, with a mean of 8 decisions per group. Analyses

of the first and last decisions for all groups revealed that, of first decisions, none was patient centered, 8 percent were physician centered, 89 percent were bureaucracy centered; and 3 percent were other. Of last decisions, 29 percent were patient centered, 14 percent were physician centered; 27 percent were bureaucracy centered, and 29 percent were other. Patient-centered decisions varied considerably in the type of patient family/nurse interaction recommended. Physician-centered and bureaucracy-centered decisions included steps taken both within and outside existing systems. Decisions classified as other included legal, professional, and consumer actions.

Application: The first decisions made by all groups showed that the students chose, initially, to work within the system to solve an ethical problem. Subsequent decisions showed little consensus as to when the nurse had fulfilled her responsibility to intervene in an ethical dilemma. Managers can reduce such confusion among nursing staff members by encouraging discussion of ethical concerns in staff meetings and one-on-one conversations.

Source: Swider, S., McElharry, B., and Yonaghi, R. Ethical decision making in a bureaucratic context by senior nursing students. *Nursing Research* 34 (2): 108-112, 1989

assess the congruence of her or his own professional goals and behaviors with the patient's care needs and personal aspirations.

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Obtaining and Using Power

The executive must stay in power by tactics that are mostly political and means that are in part Machiavellian.

GEORGE WIELAND

OBJECTIVES

After reading this chapter, you should be able to:

1. Describe situations in which a nurse manager should employ personal power, positional power, expert power, and referent power to achieve a social good.
2. Describe three behaviors that would indicate strong needs for power.
3. Describe the behavior used by your nurse manager to acquire power advantage over another in the health agency.
4. Describe one way in which your manager manipulates spatial cues to acquire a greater amount of power than other nurse managers.
5. Describe one situation in which your nurse manager timed an agency event so as to achieve power advantage over an employee.

Power is the ability and willingness to influence another's behavior for the sake of producing intended effects. The ability to move others is based on skill, requires energy expenditure, and is manifested by characteristic behaviors.

According to Buber (1966) power is expression of the life force, because a person is imbued with "originator instinct," a drive to create something new as a result of his or her own intensely experienced action. Nietzsche (1904/1968) believed that all purposive happenings in

human affairs result from attempts to increase the power of individuals or groups. Barckhardt (1978) claimed that the incentive of all great historical figures was not love of glory but sense of power. Buber taught that when power is bound to a worthwhile goal it is neither good nor bad, simply effective or ineffective. However, when power is not linked to a worthwhile goal, it is used as a personal possession and becomes evil. The essence of power is the ability to cope with life's demands, to impress one's will on external events, to achieve significance in the total scheme of things. The nurse manager should view power as essential to effecting desired changes in delivery of health services (Booth, 1983). Generally, a manager controls subordinates' behavior by manipulating rewards and punishments.

Cavanaugh (1979) claimed that persons ascribe different meanings to power: power as good; power as mobilization of resources; power as instinctive drive; power as charisma; power as political tool; and power as control and autonomy. In a survey of nurse managers at different hierarchical levels (Heineken, 1985) upper-level managers said that nurses must control others to acquire power, but lower-level managers disagreed. Perhaps the nursing group lacks power, because nurses disagree about the meaning of power. In a study of nurse managers in private and public hospitals (Heineken and Wozniak, 1988), higher-level managers were more likely than lower-level managers to ascribe

power to the possession of political knowledge and skills.

TYPES OF POWER

In order to acquire power, maintain it, and use it effectively, a manager must recognize power sources and know what types of power are needed to effect change. There are three sources of managerial power: personal, positional, and social. Power from any source may be actual or potential, direct or indirect, benevolent or destructive, legitimate or illegitimate, unilateral or bilateral, and can range in quantity from minimal to extreme.

Personal power is proportional to the strength of the manager's self-concept and self-esteem. Self-trust gives a manager confidence that she or he can influence others, so that the manager moves purposefully to intervene in employees' affairs when circumstances so dictate.

Each position in organizational hierarchy confers some amount of formal authority and power on the incumbent. The job description for a manager position specifies the incumbent's authority to make decisions and take action in specified matters. Nursing management has been decentralized in many health care agencies, so that the political power of first-line nurse managers is increasing (Warfel, 1986).

Positional power is unrelated to the incumbent's personality and ability. Therefore, the amount of power associated with a particular position remains constant despite the arrival and departure of many incumbents. Those who are comfortable in using and responding to positional power tend to perceive bureaucratic structure as modeled on the military establishment (Harrigan, 1977). People are ranked in a hierarchical power pyramid where each worker is expected to show unquestioning obedience to the immediate superior.

According to Hoelzel (1989), significant positional sources of nursing power are: chain of command, centrality, specialization, and formalization. When the chief nurse executive (CNE) reports directly to the CEO and is a mem-

MEMO CAPSULE

Concepts of Power

- Social good
- Resource mobilization
- Instinctual drive
- Charisma
- Political tool
- Control
- Autonomy

ber of the agency's Board of Directors, nursing goals and interests are likely to influence major policy decisions. When communication or command channels radiate from the nurse executive and nurse managers to managers of support departments, such as transportation, supplies, housekeeping, security, pharmacy, and laboratory, nursing needs may be major determinants in some of the activities of other disciplines.

Conversely, when positions of highly specialized nurses, such as nurse practitioners, nurse anesthetists, infusion specialists, and patient educators, are removed from the nursing department and assigned to the medical department or education department, the nursing emphasis of these specialists may be weakened. Likewise, when nurses' behavior is circumscribed by highly specified policies, procedures, and rules, nurses' power to shape organizational activities is diminished.

A nurse executive who appreciates structural sources of power will insist on reporting directly to the CEO, rather than through an associate executive or chief financial officer and will argue for the right of nurse managers to specify the nature and timing of services from support units (the right to set standards for housecleaning and time for deliveries of supplies, medications, and laboratory test reports).

To capitalize on structural sources of power, a nurse executive must compete with administrators of other departments, whose good will and cooperation may later be needed in power struggles with forces external to the health agency. To retain the good will of administrative peers while vying for power the nurse executive will recommend desired structural change in a calm and rational manner, listen courteously to angry and illogical counterarguments, and patiently reiterate the request to all stakeholders, on repeated occasions, with increasingly weighty evidentiary support. With persistence, most opposition can be overcome.

The amount of a manager's *social power* derives from the frequency and quality of interactions with peers, subordinates, and superiors.

Each transaction in the workplace offers opportunity for the manager to increase social power by directing another's behavior and carries risk of losing social power by accepting the influence of another.

Expert power is the ability to sway others through demonstration of a higher level of knowledge and skill than they possess. Referent power is the ability to inspire such admiration that others wish to associate with and emulate the object of their admiration.

Some of the nurse manager's most influential communicating and decision making occurs in a committee setting. Considerable interpersonal power is needed to advance personal interests and goals under the confusing and competitive conditions that are common to committee discussion. Umiker (1990) advises that managers increase power in meetings by analyzing the agenda before attending, rehearsing intended opening and closing statements for any proposal to be made, and networking with other members before the meeting, so as to gauge the probable response to a forthcoming proposal. Umiker also advises that the power-conscious manager sit next to an opponent (rather than across the room), call others by name when addressing them, listen carefully for what is *not* said on each topic, present ideas clearly and calmly, one point at a time, while preventing interruptions, and expand one's personal space bubble by sitting forward in the chair, moving both arms away from the trunk, spreading papers on the table, and rising when addressing a person of higher organizational status. Umiker suggests that a person can advance an argument against strong opposition by "fogging," that is, agreeing with part of an opponent's statement, before disagreeing with his or her major premise, and "negative assertion," that is, accepting some blame for a communication problem before reasserting one's original proposition.

Leaders use different methods to acquire and use power that reflect differences in power motivation. A study by Farley (1987) showed nurse managers more inclined than staff nurses to per-

ceive power as a good. Need for power is a disposition that motivates a person to attempt to program another's behavior. Power need is different from achievement need. Need to achieve is a one-person game, because a person with high-achievement need competes only with his or her own past record and is not concerned with others' performance or assessment of his or her performance (McClelland, 1975). Nurse managers who enjoy controlling others and judge personal effectiveness in relation to others' performance are power oriented, not achievement oriented.

Power may be actual or potential. Actual power is that force or ability that a person uses to effect change or provoke events that would otherwise not occur. Potential power is a latent, undeveloped force that, if expressed openly, would be capable of bringing about desired results. A manager who leads reluctant registry nurses through a picket line of striking staff nurses displays actual power. Concerned staff nurses might view a charismatic leader who sits silently through an angry labor-management confrontation as having potential power to advocate for staff nurse interests with an unsympathetic board of directors.

Power is directly applied when a manager promises reward or punishment to an employee whose behavior she or he hopes to alter. Power is indirectly applied when pressure is exerted on one employee in order to transmit pressure to a third whom the manager will not confront openly.

A manager may link power from many sources; personal, positional, or social—to worthwhile social goals or selfish ends. May (1972) speaks of nutrient power, or power used for the benefit of another; and integrative power, or power blended with another's power to achieve desirable social ends. If a nurse manager uses conviction and persuasion to motivate an alcoholic subordinate to seek counseling, he or she is using nutrient power. If the manager collaborates with others to convince the hospital administrator to institute an employee assis-

tance program to rehabilitate substance-abusing employees, the manager is using integrative power.

A manager's power over subordinates is legitimate to the degree that employees are treated fairly and prosper under the manager's leadership. A manager's power over subordinates is illegitimate when it forwards the manager's personal goals to the detriment of work group goals.

Power relations between manager and subordinates can be unilateral or bilateral, depending on organization structure, management philosophy, and the manager's personality structure. Unilateral power relations, where one person has all or most of the power, are rare; but develop in autocratic organizations with rigidly authoritarian leaders. Bilateral power relationships are common in most organization structures, because it is possible for subordinates to exert considerable power over the manager who supervises them. Even when subordinates have little control over leader behavior, the leader's ability to wield power depends on the acquiescence of subordinates. Without willing followers it is impossible to lead. In a real sense, a passive subordinate is the autocratic manager's strongest collaborator.

The reciprocity of roles in a power relationship led to the concept of synergic power, which results when several individuals combine dissimilar strengths to create an effective force for action. Synergic power develops when a group's cooperative action yields greater force than the sum of their individual efforts. Unfortunately, nurses as a group seem disinclined toward collective action (Prescott and Dennis, 1985).

The amount of a manager's power over a subordinate is determined by the manager's characteristics, the specifics of the work situation, and the subordinate's characteristics. For example, democratic leaders influence, rather than control, subordinates. Influence consists of restructuring another's perception of reality and of altering his or her preference for particular goals. Through influence—the subtle imposi-

tion of moderate power—a manager can lead even highly independent professionals toward agency goals.

Manipulative power is the use of moderate force to impel another in a direction not voluntarily chosen. It is useful in operant conditioning of mentally handicapped or morally limited persons whose behavior is harmful to themselves or society. Manipulative power is inappropriate when applied by a nurse manager to professional or nonprofessional employees. Competitive power is moderate-to-extreme power used by one person to best another and obtain advantage over him or her.

Competitive power is fairly employed only if antagonists are evenly matched and both agree that their contest must reach a win-lose conclusion. If two head nurses on adjacent units compete in decreasing personnel costs in order to win a cash award, the one who decreases costs by the greatest amount and wins the prize displays competitive power.

Exploitive power is a destructive force, whereby one person uses another to realize purely selfish ends. Exploitive power is often used by persons who have been rejected by society or significant others. A nurse who was humiliated by instructors during basic education may later demean subordinates in an attempt to bolster a shaky ego.

Obviously, power derives from control: over self (personal power), over others (social power), over instrumentalities (positional power). Positional power must be conferred; personal power must be earned; social power must be seized. Power cannot be given by one person to another because its relinquishment by one person obligates the recipient, keeping him or her in a "one down" position with reference to the donor. Unless power can be maintained against opposition, it is not power, but privilege.

POWER INSTRUMENTALITIES AND SOURCES

Galbraith (1986) differentiates the instruments for wielding power, by referring to con-

MEMO CAPSULE

Types of Power

- **Personal:** Strong self-concept and self confidence
- **Positional:** Authority to make decisions, allocate rewards
- **Social:** Frequent, significant communications, interactions
- **Expert:** Knowledge and skill admired by others
- **Referent:** Charismatic, emulated by others
- **Nutrient:** Knowledge and skill used for others' benefit
- **Integrative:** Unite disparate efforts for common good
- **Synergic:** Group effect greater than the sum of individual effects
- **Manipulative:** Use moderate force to impel another to act in accord with one's wishes
- **Competitive:** Use moderate to strong power to obtain advantage over another
- **Exploitive:** Use extreme power to force another to satisfy one's selfish intentions

dign, compensatory, and conditioned power. Condign power wins others' submission through the ability to impose an alternative to the others' preferences that is sufficiently unpleasant that they abandon their preferences. Compensatory power wins others' submission by offering an affirmative reward to those who submit. Conditioned power wins acquiescence by changing others' beliefs, so that submission to another's will seems natural and proper. According to Galbraith, three sources of power—organization, property, and personality—lie behind these power instruments. Organization is chiefly associated with condign power (threat of firing or other negative sanction); property is chiefly associated with compensatory power (promise of salary and benefits); personality is chiefly associated with conditional power (persuasion to a different belief). However, a skillful manager mixes power sources and instruments

in various strengths and combinations to achieve the exact amount and type of force needed to impel employees toward major agency goals.

REASONS FOR ACQUIRING POWER

A nurse manager should seek power for both selfish and altruistic reasons. A nurse manager will need considerable power to survive in the dog-eat-dog world of institutional politics. Without strength to move others, he or she cannot compete with the managerial elite for scarce funds, scarce personnel, scarce space, and expensive materials. He or she should also seek power to benefit patients and subordinates, because power enables a leader to behave nobly, to be generous, to right wrongs, to protect the weak, and to reward the deserving.

Individuals and groups in a health agency may seek power in order to manipulate others. Powerholders at the top of the hierarchy look for persons with similar values to be their successors and to ensure the preservation of cherished values. Subgroups and individuals can increase their power in the work force by knowing when and how to portray strong agreement with values of the administrative group (Enz, 1988). First-level managers should be alert for similar strategies by members of the nursing unit staff. An ambitious staff nurse may seek unfair advantage in competing for promotion through false claims of value congruity with the head nurse or division director.

MANIFESTATIONS OF POWER

To acquire power and use it effectively and ethically, the manager must recognize power manifestations in self and others. Each person has five levels of power potential, which are arranged in order of increasing intensity:

1. *The power to be.* The maintenance of a purely vegetative existence requires minimum force.
2. *The power of self-affirmation.* Efforts to define self and establish significance require greater force than that required for existence.
3. *The power of self-assertion.* Compelling others to reckon with one's individuality and rights requires greater force than that needed for self affirmation.
4. *The power of aggression.* Moving into and taking possession of another's territory requires force beyond that needed to define personal identity and rights.
5. *The power of violence.* Application of harmful force against another's person or property reflects a disturbed definition of self, other, and property.

MEMO CAPSULE

Levels of Power

- Being. Exist.
- Self-affirmation: Define self and significance.
- Self-assertion. Force others to reckon with one's ideas.
- Aggression: Take position of another's territory.
- Violence: Wield harmful force against another.

Power-oriented persons have certain identifying characteristics. They have greater concern for their impact on others than for the quality of their personal performance. Therefore, a power-oriented manager's official actions are usually highly visible and audible to subordinates, peers, and superiors. Following public encounter, a power-oriented manager seeks others' evaluations of her or his words and actions and programs later performance in accord with this feedback.

The power-oriented manager seeks participation in competitive, risk-taking, and status-oriented situations (McCurdy, 1982). Competitive drive stimulates a power-oriented person to convert discussions to debates. On discov-

ering a slight difference of opinion with another, the power seeker polarizes the discussion and presents arguments against the opponent's position.

Because of our democratic heritage, exercise of power is viewed negatively. Americans are happy to acknowledge high-achievement needs but unwilling to acknowledge power need. Intellectuals and professionals are prone to deny power need and use. Professional managers speak of "influence," rather than "power," over subordinates. However, influence is merely a subtle form of mild power over another's thoughts, feelings, and actions. Nurse managers like to believe that their influence behavior is personally and occupationally beneficial to subordinates. Paradoxically, the more successfully a manager influences subordinates, the more likely they are to accuse him or her of manipulating them. Because manipulation implies managerial deceit and employee stupidity, both manager and subordinates are demeaned by the accusation.

In the past, positional power in a bureaucracy was perceived to flow from the top to the bottom of the structure, following the logical division of functions and specialties. This descending power flow was related to organizational growth. Traditionally, when a particular responsibility became too large for one employee to accomplish, the task was divided and assigned to two or more subordinates, whose work was then coordinated by the person originally responsible for the entire task. Thus, power was referred downward from delegator to delegatee. Using a different perspective, Rogers (1977) contends that power flows from the bottom to the top of organizational structure, because control of operations lies with direct purveyors of agency services (Fig. 21-1).

Many large health care agencies have diffused responsibility for management decisions down to the level of direct caregivers. Such decentralization decreases the number of unilateral and indirect power relationships and increases the number of bilateral and direct power

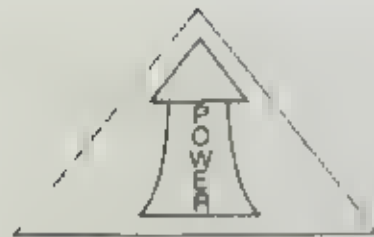


Figure 21-1 Hierarchical power flows from the bottom to the top of the organizational pyramid.

relationships. The use of project teams increases the number of integrative and synergic power relationships.

Power is dynamic and elusive. To obtain and retain power a manager must pursue it actively, seize it firmly, defend it passionately, and increase it creatively and opportunistically. Because power is dynamic, a manager's fund of power waxes and wanes with changing circumstances. Power-oriented individuals are highly competitive, so that power struggles are inevitable between ambitious power seekers, and such people focus on control issues offering the greatest strategic advantage in power politics. For power-oriented persons, the ritual aspect of a power struggle is often more important than outcomes of the struggle. Knowing this, a nurse manager will understand the need of some physicians to publicly denigrate any nurse who questions a medication order.

POWER PRINCIPLES

There are principles to guide a nurse manager in obtaining power and preventing its seizure by others. First, power is dynamic and elusive and must be continuously replenished. Second, power can be obtained only through active means; that is, it must be expressed against resistance and wrested from opponents. Casteneda (1976) describes a "warrior," or powerful person, as one who knows the world is made to be used, has no qualms about taking and using whatever he needs, but does not mind when he is taken and used by another.

Third, a power-oriented manager uses any means of control that will manipulate circum-

stances in her or his favor. Castaneda describes a "warrior" as one who discovers power by looking at reality in a new way, by "dreaming," by "collapsing the world" and then restoring it into a configuration more amenable to manipulation.

Fourth, to win in the game of organizational politics requires a person's total commitment to goals. Castaneda advises the would-be "warrior" to identify the goal(s) for each action and take full responsibility for her or his behavior. To emphasize the importance of each decision and each act, Castaneda reminds his protege that "In a world where death is the hunter, there are no small or large decisions; only decisions that we make in the face of our inevitable death."

Fifth, restraint is needed to use power appropriately (Bartolome and Laurent, 1986). A person should use only as much force as needed to achieve desired objectives. When making onslaught into a competitor's territory, one should maintain a fall-back position to which retreat is possible if the fight goes badly.

Sixth, power relations in an organization are situational, that is, a person's ability to apply force to another is contingent on specific circumstances that would not exist at another place or time (McFarland and Shiflett, 1982). For example, a subordinate's power over a superior may result from the subordinate's having held a leadership position in the past; having publicly defended the superior against attack; or having knowledge of the superior's unwise or unsafe behavior in a situation that is unknown to others. A superior's power over a subordinate may result less from their respective positions in the official table of organization than from the superior's membership on the subordinate's thesis committee or office in a professional organization that the subordinate has recently joined.

Seventh, power has spatial dimensions. That is, the amount of a person's power is relative to other powers extant in the situation. A nurse manager who attempts to wield power force-

fully will encounter strong resistance from peers and subordinates, because excessive force engenders counterforce as employees struggle for personal control and control over work life (Storlie, 1982). These counterforces limit the direction and distance through which the manager's power attempts are effective.

Eighth, all agency employees desire clear definitions of power and control relationships among staff members but are reluctant to discuss power and control issues publicly; especially in the presence of persons with high authority (Albrecht, 1983). Consequently, health workers are unlikely to ventilate dissatisfaction about power distribution and use during regular staff meetings. Resentments concerning power abuse are likely to accumulate, fester, and explode unexpectedly.

MEMO CAPSULE

Power Principles

- Power is elusive and must be continuously replenished
- Power must be obtained actively, not bestowed by another.
- The ability to exert power depends on situation characteristics.
- A person's power depends on the power of contingent others.
- People are curious about power relations in their situation
- People avoid discussing power and control issues openly

SKILLS USED IN POWER ACQUISITION

Basic skills for exerting power over others are of several types: peer skills, leadership skills, information-processing skills, conflict-resolution skills, skills in unstructured decision making, and entrepreneurial skills. Peer skills are communication and interactional skills by which a person builds a network of supporters

from whom to obtain help in a crisis. Leadership skills are communication and motivation skills with which one resolves problems arising from power, authority, and dependency phenomena. Information-processing skills are skills of receiving, encoding, grouping, storing, retrieving, translating, and sending information by which one interprets the world and transmits interpretations to others. Conflict-resolution skills are skills by which a person finds agreement between contenders and persuades disputants to collaborate in the interest of mutual gain. Skill in unstructured decision making is the ability to analyze problems for cause-and-effect relationships, generate possible solutions, select the most effective course of action, and assign responsibility for plan implementation. Improved decision skills are responsible for the increase in power that has accompanied nurses' greater acceptance of responsibility for nursing practice outcomes (Boyle, 1984). Entrepreneurial skills are the abilities to envision new goals, make bold plans, take risks, and generate unfamiliar programs and services.

EXERTION AND USE OF POWER

A nurse manager can use several leadership techniques to exert power over subordinates. A manager with personal and social power can create a feeling of unity between herself or himself and followers by listening actively and asking questions to draw out subordinates' fears, interests, hopes, and dreams. By giving or withholding punishment, a manager can instill fear in others, increasing followers' receptivity to orders and suggestions from the manager. By selective granting of rewards, a manager can create a feeling of indebtedness in subordinates that obligates them to comply with the manager's later directives and requests. Power-oriented managers control information channels in order to restrict followers' knowledge of the work situation and freedom of action.

A power oriented staff nurse may become a factional leader in the nursing unit. Opportunists are alert to power shifts and power vacuums

in the work group and move quickly into a crisis situation to establish a personal power base. An unprincipled factional leader may stake out a personal empire by identifying an older leader with waning strength, then harassing the elder into early retirement while demonstrating her or his own managerial abilities to the executive responsible for selecting the successor. To withstand attack from ambitious factional leaders, a nurse manager should analyze the agency's informal groups, identify the employee needs being met by each group, and learn to satisfy the same needs for subordinates through the formal organization, thereby weakening the referent power of factional leaders (Lapkin, 1986).

A nurse manager's power over others derives chiefly from authority to hire, fire, promote, retire, and discipline subordinates. The mythology surrounding group destiny encourages members of a troubled group to identify a single wayward member as responsible for all the group's problems (scapegoating). It is not uncommon for an unsophisticated manager to fire the scapegoated member as ritual sacrifice to expiate group guilt and restore prosperity.

To gain maximum power by firing an employee, a manager must emphasize her or his organizational power and exaggerate the shortcomings of the ousted employee. Therefore, before firing a scapegoat, a power-oriented manager generally magnifies the importance of the scapegoat's behavior and exaggerates the scapegoat's influence over others.

Forcing a senior employee to retire is as effective a power move as firing him or her. One way to speed a senior's retirement is to keep him or her busy with uninteresting power decisions that cause continuing aggravation. A senior who is contemplating retirement can be hastened to depart by allowing committees to make decisions that were formerly his or her responsibility. Extreme rudeness, exaggerated deference, and invitations to talk about the past will often demoralize an older manager who is marked for retirement. To rid the agency of

an ineffectual older manager, an administrator sometimes subtly encourages younger employees to ridicule the elder, knowing that a senior manager would be reluctant to retaliate against employees of lesser status and, so, could easily be weakened by these one-sided skirmishes.

Promoting a favorite is as effective a way to display power as firing a scapegoat and has more far-reaching effects on other employees. Usually, there are several applicants for every job opening in middle management. A manager with a need for self-display can encourage several hopefuls, play one applicant against another, and delay final selection to create suspense among contenders and onlookers. A power-oriented manager retains control over all promotions and appointments, to avoid sharing this source of reward power with others.

A power-oriented head nurse or coordinator who desires promotion to middle management should request an office as close as possible to that of the vice-president of nursing, to acquire the aura of power by associating with a known power source. Another way to acquire power is to shadow an upward-bound middle manager, to be seen as logical candidate for that manager's position when she or he moves onward. A power-motivated vice-president of nursing could seek the position of health agency administrator. In many agencies, the position of CEO would convey greater power to improve patient care systems than does the vice-president of nursing position (Hendricks, 1982).

Money is a symbol of power. The aura of dedication and altruism surrounding nursing discourages some nurses from complaining about salary and working conditions. Consequently, salaries of individual managers are a carefully guarded secret in many health agencies. Ideally, salary differences between positions at higher and lower hierarchical levels should parallel differences in job responsibilities and authority. Therefore, a vice-president of nursing cannot increase one nurse manager's salary without disrupting the balance between that salary and all others in the pay scale. A

nurse manager who desires a salary increase should persuade all nurses in the department to request a salary increment. Many managers have been swept into higher salary brackets by the successful bargaining of the staff nurses' union.

In a peculiar way, a manager may enhance personal and social power as much by quitting a position as by being promoted. If a manager sees little opportunity for advancement after notable success in a position, the manager can often gain status by making a lateral leap to the next higher—or the same—hierarchical level in another agency. The manager's power in the first organization is augmented if she or he quits on a career high point, after dramatic success in an activity that demonstrates superior abilities. A manager who resigns after winning a difficult budget battle, publishing a book, or acquiring an award gives the impression that she or he is going on to bigger and better things, whether or not the next position is more prestigious. A serious power player can compound the advantages realized in a lateral leap if, after a respectable time in the new job, she or he zigzags back to a higher-level job in the first agency.

To maintain power against opposition, a manager must invest time wisely. A power-oriented leader considers time a scarce resource and spends it like a miser. A power seeker avoids activities that contribute nothing to personal, positional, or social power in order to conserve time for competitive engagements with newsworthy opponents.

Power-oriented managers replenish power through status interactions, so that their time is packed with interviews, conferences, business meetings, and social gatherings. A power seeker may bemoan a busy schedule but never fails to use it as a control tool. The power manager forces others to accommodate her or his schedule, which implies that the manager's time is more valuable because less available. Casteneda (1976) teaches that happiness derives from full acceptance of the fact that each of us has too

little time to accomplish life's goal. He advises that one's acts acquire a peculiar power, become "immaculate," when one fixes attention on the inevitability of death.

The secret of using time well is to avoid becoming too accessible to others. Frequent participation in power struggles depletes a manager's energy, imagination, and optimism. To regain strength, a nurse manager must periodically isolate herself or himself from coworkers to contemplate, plan, and marshal resources for the next struggle.

Although a power seeker must engage in power struggles from time to time as a ritual display of strength, a power-oriented manager should avoid open confrontations, because a person is vulnerable to attack from bystanders while engaged in open combat. Instead, to block a strong opponent, a manager should position herself or himself slightly outside the opponent's arena of power, which permits the manager to apply the leverage needed to unbalance the opponent without exposing the move. To remain inaccessible and preserve personal power, the manager should avoid worrying about uncertainties. Transcendental meditation and progressive muscle relaxation will help to prevent negative preoccupations. "Centering," or focusing energy at a core body point, is another way to desensitize oneself to surroundings and minimize anxiety.

A manager can mobilize group power and appropriate it for personal use by a skillful orchestration of committee meetings. Meetings of any group that occur at a fixed time and place assume a mystical significance for the entire work force. Whether or not the group serves any practical purpose, whether or not they perform useful work, members' routine coming together preserves the rhythm of group life and augments their chief's power. Easy access to a group diminishes its power, and a power-seeking manager should limit membership in any policy or advisory committees that she or he heads to the smallest number that can achieve the group's purpose. A committee chairperson

acquires power from the mystical power attributed to the group and its leader by outsiders and by controlling committee members' behavior by selecting and ordering agenda items. A power-oriented administrator can use committee appointments defensively, as well as offensively. When a power-hungry subordinate poses a threat to the administrator's power and status, a wily leader can divert the subordinate's attention and deplete her or his energy by appointing the subordinate to so many committees that there is no time left for empire building.

Groups that make decisions about employees' welfare are vested with a large amount of institutionalized power. Consequently, a group that sets salaries, selects personnel for layoff, identifies candidates for appointment, or reorganizes the formal table of organization has great power. An ambitious manager would seek membership in many such groups.

The most effective way for a manager to increase personal power or decrease others' power is to control communication channels and limit information to opponents. By selectively distributing information about job openings, a manager enhances promotional opportunities for some persons and restricts opportunities for others. By selectively publicizing continuing education programs, a manager enhances the professional development of some employees and limits that of others. By providing detailed direction to one subordinate and scant direction to another, the manager fosters job success for the first and retards the other's progress.

To maintain acquired power, a manager must actively defend conquered territory. According to Korda (1975), power is most highly concentrated in offices on the lower floors of a building. On any floor or suite of offices, power is most highly concentrated in the corner position. A power-oriented manager can acquire additional territory by making forays into a neighbor's territory or unassigned territory, and laying claim to the area by filling it with furniture or personnel. Placing filing cabinets, bulletin boards, visitors' chairs, bookcases, or a table of

reading material in an empty office or anteroom is one way to annex space to one's established territory and, perhaps, reduce a competitor's spread. To defend one's territory against inroads by a power-hungry opponent, a nurse manager can use a definitive color or design to mark territorial boundaries and discourage squatters. The color of furnishings in the manager's office provides power cues to supporters and opponents. Dark blue symbolizes strong power. Red induces fear. Green has a soothing effect on most persons.

Personal power is enhanced when operating in one's personal power spot. Therefore, a power-oriented manager's office is the ideal site for confronting an adversary. If the manager's office is large or oblong, she or he can increase power over outsiders by arranging furniture so that visitors must walk a long distance in moving from the door to the manager's desk. If the manager's office is small, furnishings should be arranged so that the manager sits facing the door, with the desk pulled forward to increase space on the manager's side of the desk at the expense of space on the visitor's side.

When the nurse manager visits the office of the agency administrator, she or he can restrain the administrator's power and increase personal power through subtle manipulation of time and territorial cues. The manager can acquire power by dropping in to the administrator's office for a brief chat without prior appointment. Once in the office, the manager can increase personal power by dropping a jacket or lab coat on a nearby chair, or placing a clipboard or notebook on the administrator's desk, thereby encroaching on his or her territory and putting him or her slightly off guard.

The telephone is a power tool. A manager who interrupts conversation with another to take telephone calls displays disregard for the other's status and emphasizes her or his own indispensability to the world at large. A manager can administer a stronger putdown by carrying on a staccato conversation with an office

visitor while cradling a telephone receiver in one hand and while a secretary places a call to some powerful personage. An order to a secretary to "hold all calls" demonstrates the manager's ability to keep others waiting for an hour or so, a privilege usually accorded only to high-status employees.

A power-oriented person prefers initiating to receiving telephone calls, because the person who places a call controls the other's time. A skillful power broker will avoid answering outside calls, requiring the secretary to take a written message from each caller, which enables the manager to answer some calls and neglect others, and to schedule responses according to personal priorities.

Language can be used to wield power, whether communicating with individuals or groups. A manager with verbal fluency can use language to enliven, uplift, and move others to action. By using powerful metaphors a manager can force subordinates' attention to a key issue or, sometimes, divert employees' attention from a sensitive issue that would be blown out of proportion by widespread discussion (Henry and LeClair, 1987). Control of one's nonverbal expressions is also a way of exerting power (Lamar, 1985). A power-oriented manager strives to project an image of calm, cool, informed control and is careful not to show surprise when confronted with an unexpected turn of events (Wartel, 1986).

A manager can also augment power by extraordinary performance, either achieving success despite severe risk or departing from ordinary, routine activities to engage in bold, imaginative, projects. According to Mutt (1982), to increase one's power, extraordinary activities must be highly visible. A manager's activities are most visible when her or his position straddles the border between agency units. For example, the activities of a head nurse in a cardiac step-down unit would be highly visible to nursing personnel and physicians from a number of acute care and general care units in medicine and surgery.

A manager can time her or his appearance at a conference or social gathering so as to demonstrate or acquire power. A power-conscious manager arrives at a conference or business meeting early enough to set the tone for the meeting and control the group's agenda; and times arrival at a business luncheon so that she or he cannot be kept waiting by others.

A manager sometimes exerts power over an opponent by deliberately externalizing their conflict to involve others. One way to expand a conflict is to bring in outside experts and ask for a different perspective on issues underlying the disagreement (Santford, 1986).

A tape recorder or a yellow legal pad can be used as a control tool during a tension-packed meeting. A manager may take notes during a meeting for later personal use but should be careful to avoid serving as secretary for the group, because a secretary is too busy recording others' contributions to make the bold proposals and insightful conclusions that are likely to augment a person's personal or expert power. If an opponent is unusually long-winded, loud, or abusive, the manager can take the wind out of his or her sails by pushing a working tape recorder toward the offender with the comment, "Let's get your comment down exactly—for the secretary's benefit." A bully is so unnerved by the possibility that unknown outsiders might hear his or her uncensored, insensitive remarks that he or she will be struck dumb at the sight of a whirling audiotape.

If an audiotape recorder is unavailable, the manager can silence an angry, accusatory opponent by remaining absolutely silent throughout his tirade, while recording the comments verbatim on a yellow legal pad. This ploy is useful, because the activity of writing helps to control any anxiety that the accuser's angry attack may provoke in the manager. By dropping the head and fixing the gaze on a writing pad, a manager can conceal any fear, anger, or confusion felt about the issue being discussed. As the opponent continues to harangue and the manager continues to write, the opponent begins to

realize that the manager is accumulating considerable information about him or her (needs, wishes, opinions, strengths, intentions) but that he or she has no information about the manager's response to the accusations. As knowledge is power, the silent manager has achieved temporary advantage over the adversary.

If the opponent rages on and the manager decides to halt his or her performance, the insolent sound produced when the manager tears a sheet from the yellow pad provides a clear time signal, especially when the gesture is repeated once or twice.

MEMO CAPSULE

Power Moves

- Fire an employee.
- Force retirement of a senior employee.
- Promote a favorite.
- Play one subordinate against another.
- Associate with and emulate a powerful superior.
- Secure a higher position in the hierarchy.
- Obtain a significant pay raise.
- Make a lateral leap to a slightly higher position elsewhere.
- Force others to accommodate one's time schedule.
- Limit members to one's inner circle.
- Arrange to initiate, rather than receive, phone calls.
- Project an image of calm, informed control.
- Make one's extraordinary activities highly visible.

Nornhold (1986) claims that to achieve greater power in American society, nurses must mount a campaign to inform patients and the general public how much high-quality health care nurses provide—at less cost than other health professionals. Increasing specialization will increase the power of the nursing profession. Historically, when the public are con-

RESEARCH BRIEF

Nurses' Communication of Power

Purpose: Compare nurse managers and non-managers with regard to communication style and communication about power.

Sample: The director of nursing (DON) and a staff nurse from 431 randomly selected hospitals in a western state; 76 percent of urban administrators and 14 percent of rural administrators had graduate degrees.

Method: The DON and a randomly selected staff nurse from each participating hospital completed a demographic data sheet and Goldberg's 40-item Power Orientation Scale (POS) and distributed a copy of the Social Style Profile (SSP) to five coworkers who rated that DON's or staff nurse's social style. The POS measures a person's orientation to power in six dimensions: (1) power as good; (2) as resource dependency; (3) as instinctual drive, (4) as political skill, (5) as charisma; (6) as control and autonomy. The SSP consists of 32 descriptive

adjectives, each on a seven-point Likert-type scale, for assessing another's social style in terms of assertiveness, responsiveness, and versatility.

Results: The POS scores revealed differences between DONs and staff nurses on three of six orientations to power: power as good; as political skill, as control and autonomy. The SSP scores revealed that DONs were perceived as more assertive than staff nurses, but the two groups did not differ in responsiveness and versatility.

Application: DONs and staff nurses did not differ in orientation to power as resource dependency. Neither DONs nor staff nurses seem to value this type of power and, thus, fail to use their most important resource—patient information—to influence or control members of other disciplines. An organization specialist can teach nurses how to barter hardwon patient information for a larger share of organizational resources.

Source: Farley, M. Power orientation of communication styles of managers and non-managers. *Research in Nursing and Health* 10:197-202, 1987.

vinced that members of a specialized group of professionals who possess highly developed knowledge and skill can meet certain important community needs, that group is given exclusive right to provide those services. This arrangement gives the specialty group an excellent power base from which to negotiate benefits from other groups (Tiffany, 1987). Nurses are seen in this light by some members of society.

SUMMARY

To accomplish work through others' efforts, a nurse manager must influence behavior of those others, that is, must cause them to adopt certain beliefs, acquire certain attitudes, and exhibit certain actions. The manager exerts influence on others by wielding personal, positional, expert, or social power. Just as a manager can move others by exerting power over them, she

or he can be moved by force (power) exerted by superiors, peers, and subordinates. Consequently, a nurse manager should learn to identify the power moves of others and should acquire power to move others in directions that will improve the welfare of patients and employees.

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Problem Solving

Think one impossible thought every day

LEWIS CARROLL

OBJECTIVES

After reading this chapter, you should be able to:

1. Describe the manner in which divergent and convergent thinking are used in problem solving.
 2. Identify one nursing problem of the following types
 - a. Problem of simplicity
 - b. Problem of disordered complexity
 - c. Problem of ordered complexity
 3. Use the technique of Pareto analysis to identify one or two principal causes of a multi-causal problem.
-

Anurse manager's most effective leadership skill is problem-solving ability. A problem is a situation for which an individual has no ready response in her or his behavioral repertoire. An optimist might see a problem as a poorly defined opportunity for improvement in a situation. Although a problem is a provocative situation for which a person has no ready response, the problem's solution need not consist of wholly new knowledge, skill, or attitudes. Often, an effective problem solution is merely a new combination of existing ideas and abilities.

The problems confronting nurse managers are both serious and trivial; familiar and unfamiliar; associated with work processes and interpersonal relations; and resulting from the manager's, subordinates', or superiors' actions. Many techniques are used to solve nursing problems. The more common are trial and error, scientific experimentation, multistage situation critique, and metaphor-based creative techniques. A manager's duty is to determine what types of problems confront subordinates, identify the methods likely to solve each, and teach subordinates to use appropriate methods. A

complex group activity, such as operating a nursing unit, is plagued by uncertainty. Programs never proceed exactly as planned. Unexpected events interrupt routine activities. Many interruptions and crises cannot be planned for. The best way for a manager to ensure delivery of high-quality patient care is to arm nursing personnel with effective problem-solving skills. In fact, the total service program for a nursing unit should be based on a problem-solving framework. A systematic approach to problem solving increases organizational productivity (by minimizing undesirable work outcomes) and promotes nurses' career advancement (by enhancing management ability).

MEMO CAPSULE

Problem-Solving Methods

- Trial and error: Use one method after another until successful
- Experimentation: Analyze selected problem elements under controlled conditions.
- Multistage critique: Study actions of principals before, during, and after the event.
- Metaphor-based analysis: Translate the problem into a different sphere to obtain a fresh viewpoint

PROBLEM-SOLVING METHODS

The trial and error method consists of employing one intervention after another until problem manifestations are relieved. Trial and error is the simplest but most time-consuming method for resolving problems. It is the method most used by managers who lack formal training for leadership. A simple trial-and-error approach may be successful in resolving spatial or equipment problems. However, the number of trials needed to find a workable solution makes this method unsatisfactory for correcting a complex system problem.

Scientific experimentation is a process in which selected problem elements are studied under controlled conditions (Newell and Simon, 1972). A scientific approach is useful when additional data are needed to understand a problem, time is available to institute controls, and controls will not interfere with agency goals. Unfortunately, many problems confronting nurse managers have serious consequences for patient welfare. Such problems must be resolved quickly to minimize patient suffering and control costs. For these problems there is insufficient time to use controlled experimentation. Also, ethical considerations forbid the separation of patients into experimental and control groups for differential treatment. For such cases, Blake and Mouton (1978) suggest critique as a means of solving problems.

Multistage situation critique consists of evaluating workers' actions in a thoughtful way before, during, and after the problem event. For purposes of critique, information about a problem can be obtained by inspection, simulation, or participant observation. By analyzing how the behavior of the principal actors changed over time and by determining the relationship of the actors' behavior to the situational characteristics at three points in time, the manager is likely to view the problem as process rather than as isolated event.

Metaphor-based problem-solving techniques such as synectics (see later in chapter) entail breaking conventional thinking patterns and suspending judgments in order to evoke highly original ideas through forced association.

A manager needs high-level cognitive skills to use these methods of problem solving. Analytical thinking is needed to draw on previous experience and break a problem into component parts. A manager's ability for analytical thinking depends on the amount and quality of her or his experience with similar problems. A novel solution is a new solution, for which the person has no prototype recorded in memory. To produce novel solutions, a manager must employ creative thinking. A person's capacity for cre-

ative thought depends on the ability to abstract and combine ideas, perceive relationships, associate concepts, imagine novel structures and functions, and make intuitive leaps from a few observed facts to accurate conclusions. Inductive thinking is the capacity to reason from observed particulars to an appropriate generalization. Deductive thinking is inferring a specific fact from a known concept. A manager's skill in inductive and deductive reasoning depends on ability to conceptualize and categorize objects or events according to similarities and differences.

A manager's previous work experience, ability to fantasize, and skill in conceptualizing facilitate trial-and-error and analytical methods of problem solving. The ideas used in trial-and-error problem solving are not random in occurrence. Felt difficulties caused by a problem suggest a hierarchy of possible solutions to the problem solver. The hierarchical position of each possible solution depends on the individual's previous success in using that solution for similar problems (Davis, 1973).

Each problem has two aspects: (1) the problem situation; and (2) the individual's dissatisfaction with the problem situation. The critique method of problem solving includes analysis of problem phenomena and emotional responses to problem phenomena. To solve a problem

through critique, a manager must change reality and others' dissatisfaction with reality.

Regardless of the method used to solve a problem; trial and error, experimentation, critique, or metaphor-based free association, problem solvers often overlap, backtrack, or skip steps in the process. However, there is an ideal sequence of steps in the problem-solving process. Teaching nurses to follow this sequence will improve their ability to solve patient care problems.

PRINCIPLES OF PROBLEM SOLVING

Problem solving, like other managerial activities, is facilitated by proper organization. In organizing subordinates' problem-solving efforts, a manager should observe the following principles.

1. To resolve problems affecting organizational efficiency, the manager should separate large problems from small ones, use policy to solve the smaller problems, and conserve managerial time for solving major problems.
2. The manager should delegate smaller problems to subordinates and teach them to solve these by applying existing agency rules.
3. In resolving operational problems, the manager should consult internal and external experts, so that solutions will be based on current knowledge.
4. Problem solutions are most effective when the manager approaches problems in relaxed fashion and refuses to solve problems under stress.
5. It is impossible to anticipate all eventualities or to expect 100 percent accuracy in diagnosing and resolving problems. Therefore, it is unwise to agonize over selecting a solution.

To conserve time, a nurse manager should ensure that job descriptions and personnel-evaluation forms specify employees' responsibilities for problem solving. The manager should be

MEMO CAPSULE

Problem-Solving Principles

- Rely on policy for small problems, conserve time for large, unique problems
- Delegate recurring problems to subordinates trained to handle them
- Seek information for problem solving from internal and external experts
- Ensure adequate time and relaxed conditions for creative problem solving.
- After appropriate consideration, select and implement best solution without rumination

explicit in assigning problem-solving responsibility to particular employees and prepare detailed agendas for problem-solving meetings. The manager should show appreciation for unacceptable, as well as acceptable, ideas generated during employees' search for a problem solution. An official format should be used in presenting and reviewing proposed solutions to ensure that all employees' proposals receive equal consideration.

A manager can enhance staff nurses' problem solving by teaching them multiple problem-solving techniques. Adults learn best through immediate application and experimentation with newly acquired information. Therefore, problem solving instruction should include in-basket exercises, where nurses are given information about real-life nursing problems, which they must solve by using existing resources. When problem-solving instruction is given in groups, coworkers can serve as a reference source while the nurse learns new techniques; and the primary work group can be strengthened for problem solving in quality circles.

Inaccurate problem definition is the principal cause for poor problem solving. Teaching nurses to follow a step-by-step problem-solving process will improve solution quality, even for employees incapable of analytical or creative thought. To maximize the transfer of training, the manager-trainer should call attention to the type of solution that solves the problem in each in-basket vignette and discuss probable effects of using the same solution for a problem on the nursing unit.

ENCOURAGING PROBLEM-SOLVING BEHAVIOR

People tend to repeat behavior that is rewarded. A manager can increase subordinates' problem-solving efforts by providing prompt psychological, social, or material reward for problem-solving behavior. Nurses who decrease absenteeism could be rewarded by less frequent weekend duty. A work group that achieves high quality monitoring scores while working with

reduced staff could be rewarded with a recognition dinner. A manager can motivate subordinates to control operating costs by providing a cash bonus to self-scheduling employees who significantly reduce labor and supply costs. To stimulate nurses' problem solving, a manager should establish a work climate that encourages analytical and creative thinking. Both a hostile climate and an excessively soft climate hamper problem solving by interfering with problem diagnosis. When a proposed solution causes status loss for some employees and elevates others' status, losers become defensive and resistive. Group members do not carefully explore advantages and disadvantages of proposed solutions but prematurely agree on a solution. Also, if a manager is unduly supportive, the protective manager-employee bond encourages two-way complimentary feedback and prevents them from confronting significant differences of opinion.

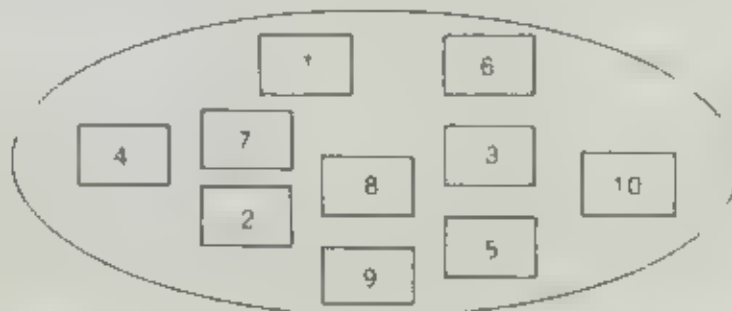
CHARACTERISTICS OF SKILLFUL PROBLEM SOLVERS

In decentralizing authority for clinical decisions, a manager should delegate the responsibility to the most capable nurses. Creative solutions are generated by nurses with clinical expertise, understanding of the problem's long-range effects, and skill in symbolic expression. Highly creative persons are characterized by their wide range of interests and their knowledge of several subjects. Persons with research skills are inclined to be politically liberal, cognitively complex, and reflective (Davis, 1973).

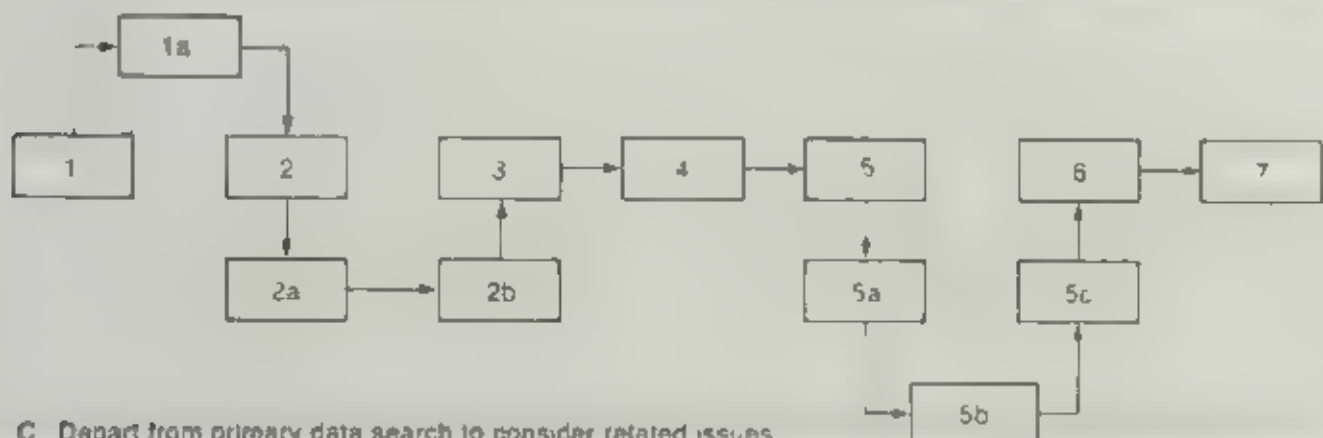
Nurses use different approaches to problem solving. Some prefer a serial approach, in which they tackle problems in sequence, completely resolving one before turning to the next. Others survey all existing problems, rank them by importance, and solve one at a time in order of priority. Still, others group problems according to the resources needed to investigate and remedy each, then resolve a group of related problems simultaneously. Creative persons become



A Tackle problems in sequence as they arise, resolving each problem before undertaking the next



B Survey all existing problems, order them, and handle first one, then another, according to priority



C Depart from primary data search to consider related issues

Figure 22-1 Individual managers demonstrate different approaches to problem solving

intrigued by related problems during investigation of the primary problem and, so, redesign the search to branch in several directions and work on several problems at once, each at a different stage of resolution (Fig. 22-1).

MEMO CAPSULE

Advantages of Group Problem Solving

- More information
- Less thought restriction
- Motivation for implementing solution

GROUP DECISION MAKING

Problem solving by individuals is necessary when there is insufficient time to assemble the work group and moderate discussion about the problem issue and when knowledge of the problem issue is confined to a single employee-expert. When there is adequate time for group problem solving, a coordinated attack by multiple employees offers the following advantages:

1. An employee group possesses more information about work setting and processes than a single individual. Problems requiring knowledge application are dependent on information from diverse sources (Brightman, 1988).

2. An individual tends to be habit-bound in problem approach. With group deliberation, peers can prevent one another from continuing to use an obviously ineffective solution.
3. Many solutions require total work force support to be effective. Participation in problem solving increases workers' acceptance of the implemented solution.

Where group problem solving is used, a discussion leader can increase the group's ability to solve problems by applying the following principles.

1. Group efforts should be directed toward overcoming surmountable (as opposed to unsurmountable) obstacles.
2. Available facts should be used, even when they are known to be inadequate.
3. The group's problem-mindedness should be increased, and their solution-mindedness delayed. Unless the group reaches full agreement on problem definition, they will be unable to agree on an optimum solution.
4. Members' disagreements can lead either to mutual distrust or innovation, depending on the leader's ability to blend disparate opinions into a hitherto unimagined solution.
5. The group's idea-generating process should be separated in time from their idea-evaluating process, because the latter will inhibit the former.
6. Problem situations should be turned into choice situations, because perception of a problem blocks behavior and predisposes employees to act on the first solution presented (which may not be the best solution).
7. Solutions suggested by the leader are improperly evaluated and tend to be either quickly accepted or quickly rejected; so the leader should solicit members' suggestions (Maurer, 1970).

Unionization stimulates staff nurses to demand authority for clinical decision making. Some agencies have implemented participatory management systems to enable direct caregivers to participate in management decisions. With this system, staff nurses are authorized to make decisions and solve problems about unit staffing, provisioning, and quality monitoring. Participatory problem solving is more complex than simply relegating problems to a committee. Under autocratic leadership, group members engage in win-lose decisions. Often, the power differential between chairperson and other group members polarizes opinions on problem solutions. Members covertly oppose solutions recommended by an autocratic chairperson, and the chairperson subtly overrides members' proposals. To foster participatory problem solving, the authoritative leader should be replaced with a neutral facilitator who takes no part in the substantive content of discussions. A facilitative leader helps members to communicate effectively and suggests strategies for attacking problems. Group syntality, or feeling of "we-ness," facilitates attitude change by group members (Jehring, 1972). Therefore, a facilitative leader engages in group-maintenance activities (provides understanding and support) as well as task activities (gives information and opinion) when guiding a group's problem-solving efforts.

FOCUS GROUPS

Recently, focus groups have been used in qualitative investigations of nursing problems. Focus groups were introduced in the 1950s as a method of consumer research for American industrial organizations. The technique consists of assembling small groups of heterogeneous "consumers" for a focused discussion of attitudes and values with reference to a specified "product."

When implementation of DRGs and prepayment of hospital costs produced a drop in patient census, hospitals began to aggressively market health services in a competitive bid for

clients. To find a profitable market niche, some hospitals used focus groups to explore the public's attitudes about existing and proposed service programs.

As management responsibilities are decentralized, nurse managers are expected to help to market agency services to the public. A nurse manager may serve as focus group facilitator to investigate the public's needs for services in her or his speciality. Managers who do not serve as facilitators are expected to use the results of the discussions to design health services for increased appeal.

Focus groups can be conducted by persons inside or outside the organization. If the target group whose opinions are sought is inside the agency (such as employees who might patronize a children's daycare service or commercial parking garage), focus groups should be conducted by an outsider, to ensure objectivity and confidentiality.

Ideally, the focus group technique consists of three phases. In phase one, the investigator interviews or surveys members of the target group to identify attitudes and concerns that bear on the study topic. The investigator will also review agency records and community data relating to the topic.

During phase two, the investigator confers with agency administrators to determine the number and size of desired focus groups, methods of selecting and assembling discussion members, and place and times for focus group meetings. Generally, four groups of 8 to 10 participants each are sufficient for thorough exploration of a topic. Major trends are apparent by the third group discussion, leaving the fourth for exploration of underdiscussed topics (Boyd et al., 1985). Homogeneity of members enhances member participation (Calder, 1977). The investigator develops a script for focus group discussion; a list of open-ended questions to explore the key concerns identified in phase one interviews or surveys.

In phase three, lists of desired participants

are developed from the phone book, previous patient records, agency personnel records, and so on. Letters are sent to targeted individuals to describe the purpose, time, place, and procedure for focus group discussions, promise confidentiality of group participation, and offer a participation fee to stimulate acceptance. The prescribed number of discussion groups (3-4) are conducted within two to three days to minimize cross talk between members of different groups. Discussions are held at a site apart from the health agency to encourage neutrality and objectivity of discussion leader and participants. Participants' consent is obtained to record the discussion on audiotape or videotape. Immediately following each focus group session the investigator reviews the audio or videotape record and summarizes discussion content. Within two weeks of the final focus group, the investigator submits a summary of the total focus group process (combining outcomes of the 3 to 4 discussions by 30 to 40 participants) to the agency administrator who commissioned the investigation (Des Rosier and Zellers, 1989).

In one midwestern hospital 10 middle managers, representing diverse disciplines, were organized into a focus group to identify both problem content and process. First, the focus group identified the agency's most serious productivity and quality problems. Then the focus group designed a group problem-solving process to fit the hospital's organization culture (Dailey et al., 1991).

DEFINITIONS

In teaching staff to use creative problem-solving techniques, the manager should review the following definitions. Divergent thinking is the process by which a rational person generates several solutions to a single problem. Convergent thinking is the process by which a rational individual selects a single solution from several possible solutions to a problem. Decision making is the process of arriving at a determination after careful consideration. Drucker (1973

claims that to decide is to make a choice between an action that is "almost right" and one that is "probably wrong." Decision making is only one step in the problem-solving process. Inference is a thought process in which the person goes beyond given information in making a judgment about a particular object or event. Inductive inference is the process of reasoning from sample data to arrive at a generalization that is based on statistical probability.

STEPS OF PROBLEM SOLVING

Critique is the problem-solving method most often used by nurse managers. The process of problem critique resembles steps of the scientific method: problem definition, data collection, generation of possible solutions, selection of the one best solution, implementation of the preferred solution, and evaluation of results.

Each problem-solving step can be subdivided. Problem definition can be broken into two parts: (1) thinking through the problem to identify aspects resulting from problem consequences and aspects resulting from problem setting; and (2) identifying subproblems most amenable to attack. Data collection consists of several steps: (1) determining what data are needed to illuminate subproblems; (2) identifying sources of needed data; and (3) specifying methods for obtaining data from identified sources. Generation of solution possibilities requires creative thinking. Creative solutions are most likely when the problem solver gathers all available information about the problem and setting and examines the problem from several perspectives. After the problem has been thoroughly explored through conscious analysis, the matter should be "incubated." That is, the problem should be set aside temporarily to permit unconscious reshuffling of ideas into novel re-combinations. Following incubation, creative problem solvers experience illumination (the "Aha!" experience) in which a fresh, "crazy" solution effortlessly ascends to consciousness. This playful, "crazy" solution can be refined and applied to the problem.

Selecting a solution includes several steps: (1) specifying concrete changes needed to eliminate a problem's causes; (2) determining criteria for a satisfactory solution; (3) predicting the consequences of each possible solution; (4) identifying the pros and cons of each solution; and (5) weighing the relative advantages of various solutions.

Implementing the selected solution may involve trial use of the solution in a single nursing unit or implementing the method on an institutionwide basis. Either way, the manager must inform employees about the purpose and particulars of the solution to ensure their full support.

Evaluating a problem's solution includes assessing process and product. The manager should assess the effect of problem-solving activities on participating employees and the efficacy of the solution in eliminating the problem. In addition to determining whether the selected intervention remedied the problem, a manager should investigate why and to what degree the method was effective.

The most critical step in the problem-solving process is problem definition. A perfect resolution is not available for most problems, but finding the best possible solution requires thorough understanding of the problem.

Mid-level nurse managers in one hospital formed a focus group to identify the characteristics of an ideal problem-solving process. The managers concluded that, to fit their hospital's organizational culture, the process would have to:

1. Enhance problem-solving skills of managers at all hierarchical levels.
2. Improve coordination among nursing units
3. Encourage teamwork through the organization.
4. Determine productivity targets, quality of care standards, and quality of service indicators for all nursing units.
5. Focus employees' attention on hospi-

tal wide problems of productivity and quality.

The managers' focus group also developed a nine-step procedure for solving nursing problems. The procedure included such problem-solving techniques as brainstorming, nominal group, cause-and-effect diagrams, Pareto analysis (see later in this chapter), and statistical analysis. Managers were trained to use quality circles, productivity indicators, and cost analysis. When these techniques were used in a pilot study, significant cost savings and patient care improvements resulted (Dailey et al., 1991).

Groups of pediatric nurse managers were successful in using cause-and-effect (fishbone) diagrams to solve problems relating to nurse retention and employee discipline (Liberatore et al., 1989). In another hospital, brain storming and cause-and-effect diagrams were used by quality circle members to solve problems relating to equipment use, supply delivery, employee training, and group cohesiveness (Kahn, 1988).

Types of Problems

There are different types of nursing problems, and all problems cannot be solved in the same way. Problems can be divided into three categories: problems of simplicity, problems of disordered complexity, and problems of ordered complexity (Weaver, 1958) (Fig. 22-2). Problems of simplicity are those involving two variables that are directly related. For example, a hospital receives fewer applications for nursing positions when nurse salaries in the agency fall below the community average. Problems of disordered complexity are those involving a moderate number of variables that are interrelated on the basis of statistical probability. The need to forecast number of trauma victims that will be admitted to each hospital in a particular city per day, month, or year is a problem of disordered complexity.

Problems of organized complexity are those requiring simultaneous attention to multiple individual factors and their interactive effect on

a dynamic system. The deployment of available nurses among all hospital units to provide adequate personnel to meet the needs of a changing patient population is a problem of organized complexity. The ideal way to handle problems of organized complexity is to isolate critical factors one at a time and painstakingly identify how each interrelates with key system factors.

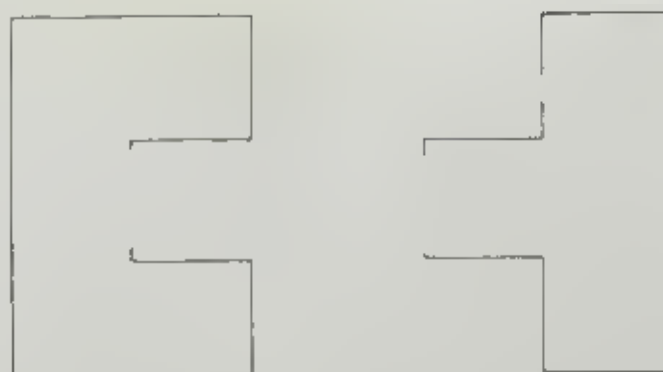
Defining the Problem and Collecting Data

Problem definition is the most critical step, because it permits the most numerous solution possibilities. As an individual moves through steps of defining, analyzing, envisioning, and selecting, more and more solution possibilities must be ruled out.

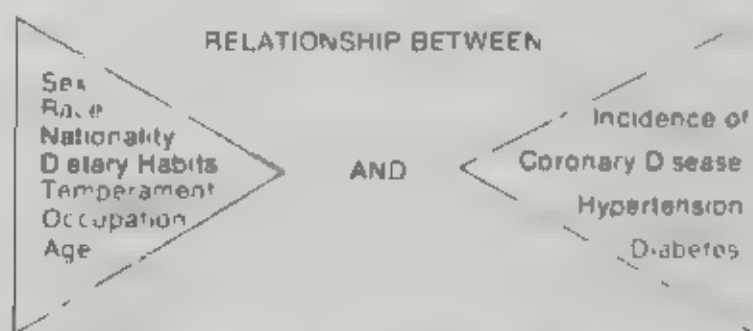
The purpose for problem definition is to identify the root cause of the problem. A manager may have to cut through multiples layers of causality and, so, problem definition is extremely time-consuming. However, if a problem's root cause is unknown, problem-solving efforts afford only temporary relief. One way to identify a problem's root cause is to determine differences in the work situation when a desired goal is and is not achieved. A factor that is absent when goals are achieved, and present when symptoms develop should be investigated as a possible cause of problem.

One can sometimes identify the root cause of a nursing problem by using negative thinking to test possible causes. Rather than searching for evidence that a particular factor has caused a problem, the nurse should search for evidence that the factor has *not* caused the problem. This technique is useful, because more evidence is required to prove that a factor caused a particular result than to rule it out as a cause.

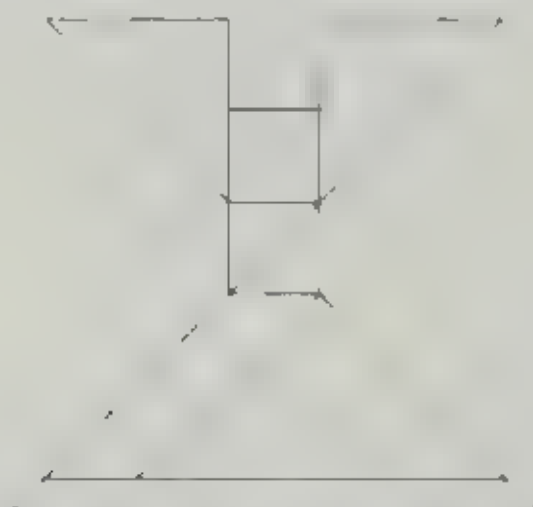
When gathering information to define a problem, a nurse manager should calculate the cost of data gathering. To minimize expense, fact-finding efforts should be problem based, not open-ended "fishing expeditions" to obtain information of possible interest and significance.



1 PROBLEMS OF SIMPLICITY Two variables that are directly related



2 PROBLEMS OF DISORDERED COMPLEXITY Moderate number of variables that interrelate on the basis of statistical probability



3 PROBLEMS OF ORGANIZED COMPLEXITY Sizable number of factors that interrelate into a dynamic whole

Figure 22-2 Types of problems.

Data for problem definition may be obtained by observing nurses at work, reviewing records, and talking with patients, nurses, and others. If information must be obtained from people, the investigator's interviewing skill

will determine the amount and quality of information gathered. The following guidelines should be followed in interviewing patients and personnel for problem information:

1. Ask questions that do not commit the respondent to a particular position on problem solution.
2. Invite respondents to describe, not evaluate situations and events.
3. Encourage respondents to answer questions from a subjective standpoint, to reveal feelings and attitudes relating to a solution.
4. Show respect for respondent's reactions to questions through active listening, non-judgmental rephrasing, and accurate summarization.

A manager can design problem-definition activities to produce single-loop or double-loop learning. Single-loop learning is a process in which a manager inspects a worker's performance according to a set of preestablished standards, draws conclusions from observations, and reports these to a third party. Double-loop learning is a process in which a worker helps a manager to gather information to define problems related to the worker's job activities. In double-loop learning the employee acts as participant observer, drawing conclusions about her or his work performance at the same time that the manager does, so that two information feedback loops are activated (Blake and Mouton, 1978).

During problem definition a manager should diagnose the setting in which the problem developed and the nature and severity of the problem. By viewing the problem setting as a continuous means-ends chain, a manager can often discover several points at which a simple managerial intervention could abort the problem. A vice-president of nursing who wants to decrease staff nurses' medication errors should analyze the conditions under which nurses provide patient care. The executive should analyze nurses' job descriptions for criteria used in employee selection; the nursing budget for criteria used in allocating personnel to nursing units; personnel schedules to determine criteria for distributing personnel across shifts; assignment

methods to determine criteria for organizing patients and nurses for care; and procedure books to determine criteria for patient safety. For example, describing the situation in which medication errors occur enables a manager to alter the work setting to minimize errors. A manager could alter staff nurse job descriptions to require skill in mathematical computation; alter the personnel budget to provide higher RN to LPN ratio; reschedule managerial personnel to make more head nurses or supervisors available on the afternoon and night shifts; change from functional or team to primary nursing system to increase the nurse's familiarity with the patient's course of illness and medication orders; or revise the medication procedure to insert additional checkpoints or information feedback. Any of these changes might increase the probability of a nurse's administering the right dose of the right drug to the right patient at the right time in the right fashion.

Problems are most apt to develop in complex nursing situations. Critical care managers can define an extremely long means-ends chain for problems common to the unit. The manager must decide how far up a means-end chain she or he should go in diagnosing a problem. To decide this, the manager should determine the amount of time available for problem solving and the amount of her or his position's authority. If problem effects are serious but there is little time for problem diagnosis, a manager should go up the means-ends chain only far enough to expose a soluble problem and identify one or more acceptable solutions. If the manager has limited influence with superiors, she or he should move up the means-ends chain only as far as her or his positional power provides adequate resource control.

Generating Solutions

To find solutions that close the gap between current and ideal conditions, a manager should identify the agency's highest-priority goals, because these will restrict time, money, and personnel available for some interventions. The

• MEMO CAPSULE •

Methods of Generating Solutions

- **Idea checklists:** Elicit nonhabitual thought and interlink unrelated ideas
- **Psychodrama:** Act out highly charged situation to discover more appropriate response.
- **Brainstorming:** Rapid, uncritical generation of numerous possible solutions.
- **Synectics:** Use fantasy, analogy, unfamiliar framing to generate unique perspective.
- **Pareto analysis:** Determine percentage of problem occurrences due to most and least important causes.

goal during the solution-generating phase is to imagine many possible solutions, to maximize probability that the best possible solution is among those considered. Optimum handling of some problems requires using more than one solution. The greater the number of solution alternatives generated, the larger the pool of possible interventions from which nurses can design a multidirectional attack on a serious problem.

A manager can maximize the quality of solution alternatives by providing exercises to stimulate subordinates' imagination, forcing employees to view each problem from several perspectives, and teaching employees to combine old ideas into new solutions. Creative methods of problem solving are described in Chapter 23, Decision Making.

Idea checklists

An idea checklist is a standard series of questions designed to elicit nonobvious, nonhabitual thought processes and idea combinations about problem elements. For example, an idea checklist to generate novel solutions to forms, supply, or equipment problems might pose the following questions (Davis, 1973):

1. Can the item be put to other uses?

2. Can the item be changed to increase its usefulness or attractiveness?
3. Can the item be enlarged or reduced in size to any advantage?
4. Can something else (less complex or less expensive) be substituted for this item?
5. Can the item components be rearranged to improve speed or ease of use?
6. Would the item be improved by reversing or rearranging its parts?
7. Could the utility of the item be increased by combining or linking it to another?

Psychodrama

Psychodrama is often useful in generating possible solutions to social or psychological problems that confront the primary work group. By acting out a highly charged interpersonal relationship with an understanding "adversary," an individual can sometimes identify more effective responses or interventions than those within his or her usual mode of reaction.

Brainstorming

Brainstorming is a method by which problem solvers rapidly generate many possible problem solutions through an imaginative process of thought association and fantasy. In brainstorming, emphasis is on number rather than on quality of solution suggestions generated, so successful use of the method requires deterring judgment on quality of proposed solutions until enough alternatives have been produced to ensure inclusion of several potentially useful ideas.

Brainstorming is most successful when used in a small group of 10 to 12 members with heterogeneous experience but similar organizational status. The group should be told twenty-four to forty-eight hours in advance what problem they will be asked to deal with in the brainstorming session. The session should begin with explanation of the ground rules, such as the fact that a large number of ideas are needed in rapid succession, that wild and "crazy" ideas are not only acceptable but desirable, and that criticism of ideas is forbidden.

At close of the session group members should take each new idea generated through brainstorming and evaluate its originality and flexibility. The more promising ideas should be set aside for later amplification and refinement. Two days after the brainstorming session, the facilitator should contact group participants to collect any postsession ideas that have been generated, because some people produce their most creative ideas only after a period of incubation.

Synectics

Synectics is a metaphorically based thinking technique developed by William J. Gordon. This method, which is based on the union of opposites, uses direct, personal, and fantasy analogies to stimulate creative problem solutions.

Direct analogy consists of looking for parallels to the current problem in remote situations. For example, the problem of reorganizing a nursing staff for participative management may be better understood by scrutinizing the functioning of the medical staff organization in the same institution.

Personal analogy consists of imagining oneself to be the problem object. For example, a supervisor who is concerned about the fact that immigrant nurses on her staff frequently address one another during duty hours in their native language, thereby offending patients and co-workers, might imagine herself and a friend to be immigrant nurses in a German or French hospital. Such analogy might help the supervisor to understand why and on what occasions an immigrant nurse would be apt to lapse into her native language and might suggest ground rules for on-duty language use that would be acceptable to non-native employees.

Fantasy analogy consists of resorting to a highly fanciful parallel example of the problem under study so as to view the situation from a fresh perspective. For example, in attempting to revamp a master's program in clinical nursing to make it more relevant to needs of nurses in practice, the faculty might obtain fresh insights

regarding appropriate course content by fantasizing relationships between the generic nursing program, the graduate nurse, continuing education offerings, nursing positions in the community, and the ideal master's nursing program as similar to relationships between the earth, a group of astronauts, interplanetary space vehicles, various planets included in the astronauts' itinerary, and a space station in which both space vehicles and astronauts can be refueled, repaired, and reprogrammed for future odysseys.

The synectics method has been successful in generating creative problem solutions because the use of analogies breaks the stultifying effects of habit, fixation, and conformity and makes conscious use of valuable but elusive creative mechanisms—namely, irrelevance, detachment, metaphorical word play, empathy, and intuition.

Although the critique method of problem solving calls for the group leader to be permissive rather than directive—a facilitator rather than a chairperson—the leader of a synectics group must be directive. When a synectics group is called together, the leader states the problem as given. Next, detailed analysis of the problem is given by an expert to provide group members with background information from which to think about the problem. Then the leader calls for a "purge" or immediate airing by all group members of the obvious solutions that first present themselves to consciousness. The expert explains why each of these "obvious" solutions is unworkable, because these solutions would already have been considered and discarded by the experts. Next, each group member is asked to rewrite a statement of the problem as understood (this statement would differ from the original statement of the problem because of insights developed during conversations with the expert). The synectics leader picks one member's statement of the problem as understood for further study, decides which type of analogy to use in investigating the problem, and initiates metaphorical activity through evocative ques-

tioning. After the group has generated several fertile suggestions, the leader chooses the most promising of these analogies for further development and leads the group to expand and improve the idea. Finally, the leader coaches the group to "force fit" the fully developed analogy to the real problem situation in order to determine whether the solution is worthy of application.

Pareto analysis

Pareto analysis is a method of problem solving that is named after an Italian economist. The method is based on the observation that, for any problem of quality that has many causes, one or a few causes are responsible for most problem occurrences (Goldberg and Pegels, 1984). In the Pareto method the manager begins by identifying all possible causes for a problem. For each problem occurrence, the manager tallies the cause(s) contributing to that event. Next, a histogram is constructed to reflect the percentage of problem occurrences resulting from each cause. The histogram is redrawn to portray contribution of the most important cause to the far left of the figure and contributions of remaining causes in descending order of importance toward the right of the figure. After identifying relative importance of each causative factor, the manager should work to eliminate the most important cause first, because this strategy will yield the greatest benefit from manager's and subordinates' problem-solving efforts.

Selecting a Solution

After some analytical and some creative solution possibilities have been developed, the most promising should be selected for implementation. The manager and subordinates should measure each alternative against a set of acceptability criteria to calculate an overall acceptability rating for each. A guide sheet will be needed in evaluating alternative solutions to ensure that every criterion is used in evaluating each alternative. The following criteria could be

used to measure acceptability of alternative assignment methods.

The preferred method of nurse assignment would

1. Ensure continuity of care for each patient throughout an entire episode of illness.
2. Preserve the identity and integrity of the primary work group in each nursing unit.
3. Minimize turnover of nursing staff members.
4. Permit implementation of the method without laying off current staff members.
5. Require the least possible expenditure of personnel funds.

If proposed alternatives for personnel assignment were functional nursing, team nursing, modular nursing, primary nursing, or some combination of these, a manager might develop the following checklist for measuring solution acceptability:

1. What is the longest possible contact between a patient and his or her principal nurse under each method?
2. What is the shortest possible contact between a patient and his or her principal nurse under each method?
3. What is the probable length of contact, on average, between each patient and his or her principal nurse under each method?
4. What is the longest possible direct association among primary work group members (employees in daily, face-to-face contact) under each method?
5. What is the shortest possible direct association among primary work group members under each method?
6. What is the probable length of direct association among primary work group members under each method?
7. What are likely causes of worker dissatisfaction under each method?
8. What are likely causes of worker satisfaction under each method?

9. Which is likely to be greatest under each method: employee dissatisfaction or satisfaction?
10. How many of each worker category would have to be added or relocated to change from the present assignment method to each method?
11. How adequate is the supply of each worker category that would have to be added to each unit under each method?
12. What opportunities exist for reclassification or transfer of worker categories that must be dropped from the nursing unit to institute each method?
13. How many of each worker category will be needed in each nursing unit under each method?
14. What is the going wage for all categories of nursing employees?
15. What personnel expenditures are pro-

jected for personnel needed to care for expected numbers of patients under each method?

This checklist highlights principal factors to be considered in selecting the "best" from available problem solutions. Considerable time would be needed to acquire information for answering these questions. However, some of this information is available in research reports. Furthermore, it is unnecessary to weigh all relevant evidence to identify a workable solution. Even major nursing problems can often be solved by using information accumulated during normal agency operations. Information accumulated in operating reports during early stages of the problem often points to a particular solution as clearly more suitable than others. When it becomes necessary to select one from several corrective actions, the desired solution is apparent

RESEARCH BRIEF

Nurses' Clinical Reasoning

Theory: Information-Processing Theory.

Purpose: Determine how experienced nurses reason while formulating a patient care plan.

Subjects: Volunteer sample of seven baccalaureate-educated, registered nurses who had worked for at least two years with chronically ill hospitalized adults.

Method: Subject was presented with a case study of an elderly female with memory loss, hypertension, congestive heart failure, arthritis, chronic pain, and nonadherence to medication regime. The subject was audiotaped while verbalizing all thoughts when using case study information to plan a home health-care referral, and her transcript was analyzed to determine the (1) universe of concepts considered, (2) relationships formed between considered concepts, (3) total pattern of interlinked concepts and relationships.

Findings: Similar problems and interventions were verbalized by all seven subjects, with some subjects attending to a greater number of problems, and some attending to fewer problems, but in greater detail. During plan construction, problems and interventions were inextricably linked in nurses' consciousness, rather than considered separately. Interestingly, no specific goal statements were identified as objectified concepts in transcripts of subjects' think-aloud process.

Applications: Perhaps experienced nurses reduce cognitive stress and conserve time by considering problems and interventions concurrently, not as separate steps in a linear process. If so, this feature of information processing should be incorporated into expert systems that are developed to support professional nursing practice.

NOTE: CLINICAL REASONING IS THEORETICALLY A LOGICALLY COHERENT AND SYSTEMATIC PROCESS, BUT IN PRACTICE IT IS A PLANNING TASK. *Research in Nursing and Health* 14:305-314, 1991

to all and, so, requires only formal acceptance by the work group and review of the entire problem-solving process to tie up any loose ends that were ignored earlier.

When the preferred solution is identified, the phase of accommodation begins, in which the adopted solution is fitted to the problem. The nurse manager's responsibility during the accommodation phase is to obtain written or oral commitment from each subordinate to support the agreed-upon solution.

SUMMARY

The nurse manager is paid to solve problems, to restore balance in complex work systems disrupted by unforeseen circumstances. To solve complex problems, a manager needs ability to define problems, detect cause-and-effect relationships, design workable solution alternatives, test proposed solutions, and guide nurses in implementing problem solutions. A nurse manager should spread responsibility for clinical problem solving among staff nurses.

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Decision Making

In a world where death is the hunter there are no small or large decisions. There are only decisions that we make in the face of our inevitable death.

CARLOS CASTENEDA

OBJECTIVES

After reading this chapter, you should be able to.

1. Outline steps of decision making in correct sequence.
 2. Describe a nursing situation in which information overload prevented you from making an effective clinical or management decision.
 3. Describe a situation in which you experienced decisional conflict. Diagnose your response as unconflicted inertia, unconflicted change, defensive avoidance, hypervigilance, or vigilance.
 4. Construct a decision tree for making a professional decision: Specify the problem, two alternative courses of action, two states of nature, and the expected payoff for each alternative or state of nature combination.
-

A manager's pivotal leadership activity is decision making. Theorists claim that decision making is the core of management, because a decision is required to instigate any significant action by employees.

It is more difficult to make nursing management decisions today than a generation ago. Over the years, information bases for nursing and management have grown considerably. Conse-

quently, managers must manipulate a formidable fund of fact and theory in deciding how to promote the welfare of patients, employees, and employer.

To decide questions of resource allocation, a nurse manager must acquire background information from a multitude of computerized records: budget account summaries; patient census reports; medical records; employee personnel

records; summaries of employee sick, absent, and vacation time; and staffing analyses. To establish nursing objectives, standards, and priorities, the manager must acquire up-to-date information about research findings, practice innovations, educational opportunities, and federal and state health care initiatives. The trend toward participative management requires a manager to negotiate with multiple employee groups and to ensure broad participation in problem identification and resolution. High levels of communication and group dynamics skill are needed to coordinate efforts of diverse professional, technical, and ancillary workers. Although management decision making has become more difficult, there is a greater need for high-quality managerial decisions in order to conserve shrinking health care funds and personnel resources. Nursing outcomes have life-and-death significance for patients. Nursing personnel costs are the largest single budget item in most health agencies. Consequently, poor-quality nursing management decisions produce severe personal and financial losses for citizens.

DECISION MAKING DEFINED

Decision making is a deliberative, cognitive process consisting of sequential steps that can be analyzed and refined. Improvement of decision-making produces greater precision in initiating action and solving problems. The decision making process consists of conscious, voluntary mental activity with an underlay of unconscious attitudes that influence the speed and direction of cognition. Through introspection and analysis a manager can identify her or his underlying attitudes and modify them to improve decision accuracy.

A decision is the last step in the process by which an individual chooses one alternative from several to achieve a desired objective. Umiker (1989) likens decision making to a matching items question, where a finite number of alternatives are considered, and problem solving to a fill-in-the-blanks question, where the number of possible answers is infinite. Ide-

ally, selecting the preferred alternative follows careful weighing of probable consequences of several possible courses of action. Weighing of consequences requires analytical, deductive, and inductive reasoning. A manager's decision is needed to change an undesirable work situation to a more desirable one.

To advance agency goals, a nurse manager's decisions must be timely, based on clinical reality, consonant with personnel and materiel resources, and communicated so as to motivate, rather than antagonize, the subordinates who will implement the decision.

A manager may approach decision making from two viewpoints: the idealized view of "Economic man", or the pragmatic view of "Administrative man" (Simon, 1960). In the idealized view, a manager who is faced with a problem weighs the economic aspects of all possible courses of action and chooses the action that is expected to yield the greatest net gain or the least loss.

According to the pragmatic view, real-life management decisions are never made in situations of clarity and certainty, because the manager cannot understand all the causes and effects of a complex phenomenon and cannot envision all possible problem solutions. Therefore, managers base work-related decisions on a simplified notion of the real world (Simon, 1960).

A decision is not a free-standing event but a point in a process. That point reflects much that has occurred in the past and anticipates much that will occur in the future. Past, present, and future should be considered when making a decision, for the decision and its results to blend smoothly with other agency events. To understand the historical background for a particular management decision, the manager should trace the chronological sequence of former decisions that produced the present problem.

Experienced executives anticipate that their management decisions will have infectious results. Every executive decision generates a spate of other decisions. The new reality created by an executive decision is always slightly out of

phase with existing policies and procedures. To restore harmony, the dysphasic state must be adjusted by additional management decisions. Also, high-level management decisions stimulate low-level management decisions, because managers emulate their superiors' power-oriented behavior. According to Umiker (1989), decisions of top executives answer the question "What?," whereas decisions of first-level managers answer the question "How?"

The quality of each management decision depends on the quantity and quality of work-related information that is available to the manager when the decision is made. Much information used in managerial decision-making is obtained as feedback from organization control systems. A patient care audit finding that hospitalized women have not been offered a Pap smear test for cervical carcinoma may provoke a decision to alter the patient history form to permit documentation that the Pap test is offered to each adult female on admission. A quality-monitoring finding that intravenous administration sites are improperly labeled may provoke a decision that each newly hired nurse must complete a practicum in administration of intravenous fluids during orientation.

INFORMATION OVERLOAD

Considerable background information is needed for making management decisions. Much of this information comes to a nurse manager as document output of an agency's computerized MIS. However, a computerized MIS predisposes a manager to information overload, which impairs decision making as much as lack of information (Hanson, 1982). Information overload is the input of more information than a decision maker can effectively process. It is difficult for agency planners to protect managers from information overload, because leaders differ in their data-processing ability. Differences in intellectual ability, management experience, and computer skills render some managers more comfortable with computerized data than others.

Several responses to information overload are possible. All but one have negative consequences. Negative reactions to information overload include errors, omissions, queuing, filtering, approximating, and flight. The desirable response to information overload is to create additional channels for handling excess information.

Errors in computation, judgment, and decision making occur when the manager interprets available information incorrectly because of hasty processing of excessive information volume. Omissions, such as failure to schedule needed meetings, conclude business agreements, or apply needed employee discipline, occur when the manager fails to process vital information because of lack of time and energy. Queuing, or backing up important decisions and activities, occurs when the manager deliberately delays some activities during periods of peak information flow. When confronted with too many demands on attention, the manager filters or drops out less important information to make time available for high-priority issues (Ungson et al., 1981).

An information-stressed manager may decrease time spent in data processing by approximation, or cutting multiple category discrimination to less refined discrimination. A manager's usual method of processing in-basket messages is to read each in sequence and attach a directive to the secretary that spells out an answering letter, an assignment to a subordinate, a request for information, a meeting notice, a distribution of copies to others, or a direction for filing. An information-smothered manager will avoid calling committee meetings or requesting additional information about a problem, even when information need is obvious, because she or he is already threatened by the mass of information that clamors for attention. When information overload is so extreme that it produces confusion and panic, the manager may flee the workplace, literally or figuratively, to decrease sensory input. During duty time the manager may escape information

overload through daydreaming, procrastinating, socializing, early departure, and overlong break periods. When these defenses are exhausted, the manager may use excessive sick and absent time to avoid being inundated by unwanted information.

The preferred method for handling information overload is to create multiple channels for handling increased data flow. For example, significant management information, such as that relating to patient welfare, personnel performance, and fund availability, can be separated from nonurgent, personal interest information, so that the former can be acted on promptly. A vice-president of nursing who is unable to respond appropriately to the total volume of information funneled through the central nursing office should assign staff officers to handle some of the information. One could be assigned to respond to all staffing data; another to all policy and procedure information; another to all industrial relations issues. Also, the vice-president of nursing should assign the executive secretary to screen all correspondence addressed to the vice-president and redirect selected messages to the staff officer assigned to handle each issue.

MEMO CAPSULE

Reactions to Information Overload

- Error: Hasty processing, faulty analysis
- Omission: Overlooking essentials due to distraction
- Queuing: Stalling routine decisions to handle crises
- Filtering: Neglecting details, focusing on most noticeable events
- Approximating: Using quick and "fuzzy" categorizations
- Flight: Departing scene to avoid pressure
- Additional channels: Delegating "programmable" decisions

DECISIONAL CONFLICT

Many managers find decision making their most difficult responsibility, perhaps because they have not been socialized to value decision autonomy (Pinch, 1985). In high-risk situations decision makers suffer psychological conflict, because they perceive possible loss regardless of the decision. Conflict resulting from simultaneous tendencies to accept and reject a given course of action causes the decision maker to vacillate between the two decisions (Hill et al., 1980).

The amount of psychological stress resulting from decisional conflict depends on the importance of decision outcome. Leaders differ in stress tolerance level. Janis and Mann (1977) claim that each manager responds to decisional difficulty by using one of the following coping techniques: unconflicted inertia, unconflicted change to a new course of action, defensive avoidance, hypervigilance, and vigilance.

If pressures to change direction and to persist in the present course are equal and the decision maker expects additional information to support one choice or the other, she or he will refrain from deciding until the awaited information is available (unconflicted inertia). If the advantages of the proposed action outweigh the advantages of the status quo and the disadvantages of the present state outweigh the disadvantages of the proposed action, the decision maker will adopt the proposed change without further rumination (unconflicted change).

When a decision maker who is strongly committed to the present course encounters severe threat and holds little hope of finding an acceptable solution, she or he will display defensive avoidance of threat cues. Defensive avoidance is characterized by failure to search for alternative courses of action; selective inattention to threat cues; selective forgetting of threat information; distorting significance of threat messages; and engaging in wishful thinking.

When a decision maker is strongly committed to the present course, threat of loss is severe, and there is insufficient time to find an escape

route, she or he will display hypervigilant, or panic, behavior. The panic state is characterized by constriction of attention; perseverance of action that is clearly inappropriate; disruption of thought processes; decrease in recent memory; and impairment of cognitive ability.

The ideal method of coping with decision conflict is vigilance. When psychological stress is moderate, a manager can scrutinize available courses of action, retain hope for problem solution, avoid undue influence from others, and identify drawbacks in available alternatives. In all but the most dangerous crises, vigilance produces effective decisions. However, in an emergency, when escape routes are risky and closing rapidly, the impetuous response of a panic-ridden individual may avert tragedy more effectively than reasoned reality testing by a vigilant individual.

MEMO CAPSULE

Responses to Decisional Conflict

- Unconflicted inertia: Comfortable wait for more information
- Unconflicted change: Preference for clearly superior alternative
- Defensive avoidance: Persistence in obviously dangerous course
- Hypervigilance: Frantic search and scurry, poor judgment
- Vigilance: Careful scrutiny of possible threat, opportunity

UNCERTAINTY AND RISK

A nurse manager must be able to differentiate situations of uncertainty from situations of risk, because different decision techniques are needed in the two situations. Uncertainty is the lack of *knowledge* about outcomes of action. Risk is lack of *control* over action outcomes. Under risk, the decision maker has a knowledge of action outcomes but cannot control them. It is

more difficult to make a decision under uncertainty than under risk. With uncertainty, a decision maker has no rational basis for choosing one strategy over another, because rational choice requires the assessment of the relative desirability of several possible outcomes.

When action outcomes are known, a manager's decision to select one action over another depends on preference ordering of all possible outcomes from all possible actions. The manager chooses the course of action that promises the most desirable outcomes. As rational as this seems, changing circumstances may necessitate reordering priorities. Consequently, the course of action that is preferred at the beginning of the decision process may not be the preferred course at a late stage of the process. A decision maker cannot predict action outcomes with perfect certainty either, because each change force provokes unexpected counterforces.

Under risk, a decision maker knows the possible outcomes of alternative actions but cannot control the occurrence of any outcome. In this situation a manager will thus make decisions as though all outcomes from all actions were equally likely to occur, which is unlikely. If a manager knows the possible outcomes of each action and the probability of each, she or he can mathematically calculate which strategy will maximize chances for satisfactory problem resolution.

Ignorance and Error

The condition of uncertainty in decision making results partly from ignorance and partly from error. Ignorance is the failure to recognize possible outcomes of action. Error is the inaccurate prediction of probability of known action outcomes. Both ignorance and error impair decision making by creating a gap between reality of the work situation and the manager's subjective view of the work situation. Ignorance and error can be corrected. A vigilant manager makes decisions to achieve the best possible payoff under the current state of knowledge, while striving to lessen any ignorance and error sug-

gested by unexpected action outcomes. A manager who vigilantly processes data may be able to use outcomes of one decision process as input for another. If outcomes from a decision do not match the manager's expectations, she or he should seek more reliable information and repeat the decision process.

TYPES OF DECISIONS

Management decisions are of three types: strategic, administrative, and operational. Strategic decisions are those made by top executives that commit valuable agency resources to achieve major, long-term goals. A study by Nagelkerk and Henry (1990) revealed that nurse executives who were successful in making strategic decisions contacted members of a extensive support network to obtain crucial problem information, used mixed scanning to analyze problem causes, and obtained support of the agency's dominant coalition in sifting through alternatives for the best problem solution.

Administrative decisions are those made by mid-level managers to resolve unusual problems and develop innovative methods for improving agency function. Kaluzny (1989) claims that mid-level nurse managers are primarily responsible for decisions that determine patient care quality. Effective decision making requires mid-level managers to differentiate special causes from common causes of variation. Special causes of variation are deviations from intended process specification (nursing practice standards) that result from attributable, controllable, nonrandom events. Therefore, special causes of variation can be controlled by direct intervention with selected practitioners, without fundamental change in the ongoing care system. Common causes are random variations that occur by chance in the patient care system when the system is running as designed. Therefore, common causes cannot be controlled through simple interventions in the ongoing process but may be achieved by redesigning the total care system through organization development and group decision making.

Operational decisions are routine decisions governing day-to-day events that have been delegated to first-level managers and are made according to preestablished rules, regulations, and instructions. To ensure that subordinates fulfill the decision-making responsibilities delegated to them, Umiker (1989) advises that executives require "completed staff work" from mid level and first-level managers. "Completed staff work" is a descriptive analysis of a work problem, together with a recommended solution for the identified problem.

Management decisions may be programmed or nonprogrammed. Programmed decisions are decisions needed in problem situations where it is immediately apparent what information is needed and where the information can be obtained. Familiar, structured problems generate agency policies and regulations, which are then used to guide the solution of similar problems. Programmed decisions are those made with little deliberation, by following preexisting rules that were developed to save time and ensure consistency. Nonprogrammed decisions are novel, unstructured, creative decisions that are made to solve problems for which no well-defined strategies are available.

MEMO CAPSULE

Decision Types

- Programmed decisions
 - Familiar, recurrent problem
 - Needed information obvious
 - Can be reduced to policy, procedure
- Nonprogrammed decisions
 - Unfamiliar, novel, complex problem
 - Unclear what information is needed
 - Solution requires a creative approach

Decisions can be made according to a normative model or a descriptive model. The normative model of decision making provides a sys-

tematic process for selecting one alternative from several under varying conditions of certainty, risk, and conflict. It assumes that the decision maker is completely rational and that there is sufficient time to identify and explore all possible alternatives (Lancaster and Lancaster, 1982). However, high-pressured health agencies are not characterized by time surplus and complete rationality. Therefore, a descriptive model of decision making is more suitable for nurse managers. The descriptive model offers a more pragmatic approach than the normative model and reveals how decision making is carried out, not how it *should* be carried out. The descriptive model is based on the observation that most managers make "satisficing" rather than "optimizing" decisions. That is, managers do not aim for a perfect decision, since that is impossible under conditions of imperfect knowledge, conflicting goals, and inadequate time. Instead, managers aim for a course of action they can accept, because it is "good enough" to meet a set of minimum standards.

DECISION STRATEGIES

Before the manager can select a decision method or aid, she or he should adopt a decision strategy. A strategy is an artful or clever plan for applying techniques in pursuit of a goal. Experts describe the following strategies for managerial decision making. Some strategies are better suited for some types of problems than others:

- Optimizing
- Satisficing
- Mixed scanning
- Opportunistic
- Do nothing
- Solving for the critical limiting factor
- Maximax
- Maximin
- Mini-regret
- Precautionary
- Evolutionary
- Chameleon

To select the most appropriate decision strategy for a particular problem the manager should analyze the following attributes. Different problem attributes render certain strategies more effective or less time-consuming than others:

1. How important is decision quality to agency welfare?
2. Does the manager possess sufficient information about the issue to make a good decision?
3. If the manager does not possess the necessary information, how quickly can she or he obtain it?
4. To what extent is the problem structured? Is it clear what information is needed to make the decision?
5. How much does agency success depend on employee acceptance of the decision?
6. What is the probability that an autocratic decision by the manager will be accepted by employees?
7. Is there likely to be conflict among employees concerning the preferred decision?
8. How much certainty exists about outcomes and outcome probabilities associated with the preferred decision?
9. For how long will the preferred decision commit valuable agency resources?
10. How flexible is the plan that results from the preferred decision? (Koontz and O'Donnell, 1976)

With answers to these questions, the manager can select the decision strategy that best fits informational, temporal, structural, and motivational characteristics of the problem situation.

An optimizing strategy is one in which the decision maker determines the different states of nature (prevailing conditions) that may exist when action is taken, available courses of action, possible outcomes for each action, and probability of each outcome. States of nature and possible actions are arranged in a matrix that shows the expected payoff probability of each state of nature in combination with each

action. Then, the manager selects the course of action that yields greatest amount of desired outcome.

Unfortunately, most managerial decisions are made under conditions of ignorance, error, and risk. Under these conditions an optimizing strategy is unworkable; so the satisficing strategy should be used. Satisficing consists of seeking not the best possible solution, but one that is good enough under prevailing circumstances to meet minimum criteria for acceptance.

The mixed scanning approach to decision making combines elements of optimizing and satisficing; using first shallow, then deep examination of problem information (Etzioni, 1989). Many nursing decisions involve weighty (life and death) and complex (multivariate) circumstances, in which careful study of all relevant information is impossible, but scrutiny of selected facts is essential. To use mixed scanning, a decision maker rapidly scans information about all aspects of a problem situation. Then, following a general overview of the total problem, the decision maker focuses on the most critical problem element, for which she or he gathers and analyzes additional data and designs possible interventions. Nurse executives find mixed scanning an effective method for making decisions about appropriate allocation of personnel and materiel resources (Nagelkerk and Henry, 1990).

An opportunistic strategy is based on the notion that the employee who identifies a problem has a better-than-average opportunity to shape problem definition and problem solution. A power-oriented manager vigilantly scans daily operations to detect problems in any area where she or he is able to augment personal, positional, or social power. A head nurse who desires promotion to the post of director of staff development would look for evidence of staff nurse performance failure that could be attributed to faulty orientation or continuing education. A vice-president of nursing who desires promotion to the position of hospital administrator would look for evidence of excessive personnel costs

that could be reduced through more accurate prediction of patient census, length of stay, and acuity levels—variables influencing nursing workload. In both instances, the upward-bound manager would call the top administrator's attention to the hitherto unsuspected problem and suggest that, if promoted to the appropriate position, she or he could remedy the matter.

In a rapidly changing crisis situation, the nurse manager's best strategy may be to do nothing, to refrain from decision and action until the crisis has passed and conditions have stabilized enough to permit a careful analysis of crisis cause and effects.

A limiting factor is one that blocks achievement of an objective. A critical limiting factor is the one of several limiting factors that affords the greatest deterrence to success. The strategy of identifying and removing the critical limiting factor is aimed at eliminating the most powerful, most immediate, or most lasting obstacle to success, in the hope that, with this obstacle removed, employees can successfully eliminate remaining obstacles. For example, excessive RN turnover is a threat to nursing quality. In a given agency, investigation might reveal that low pay, improper orientation, frequent reassignment, inadequate in-service, and lack of promotion opportunity all contribute to turnover. If nurses' exit interviews reveal that low pay is the reason for resignation of 70 percent of leavers, while all other factors together account for 30 percent of leavers, the nurse executive's first step should be to persuade the agency administrator to increase nurse salaries across the board.

The maximax strategy is an optimistic decision strategy that is based on the assumption that, when action is taken, the best possible state of nature will exist, resulting in the highest possible payoff from any action. The decision maker constructs a two-dimensional grid reflecting all possible states of nature and all possible actions. Then, she or he calculates the payoff for each action under all states of nature and finally chooses the action that yields the largest

payoff under the most favorable state of nature (Daniel and Terrill, 1978).

The maximin strategy is a pessimistic strategy that is used by a manager who expects the worst state of nature to exist when action is taken. Therefore, the manager expects the worst possible result from any action taken. A two-dimensional grid is constructed to show all possible states of nature, all possible actions, and probabilities and expected payoffs for each action or state of nature combination. Then, the decision maker selects that action yielding the best results under the worst state of nature.

The strategy of mini-regret is designed to minimize the surprise resulting from any decision by choosing the action that yields an outcome that departs least from the best possible and worst possible outcomes under all states of nature. The decision maker constructs a two-dimensional grid that includes all possible states of nature and all available actions and shows probabilities of each state of nature and expected payoff for each action and state of nature combination. After identifying the highest and lowest possible payoffs from all actions under all states of nature, the manager chooses the action that yields a payoff midway between the highest and lowest possible payoffs (Woltson and Carroll, 1976).

A precautionary strategy is useful when the manager is engaged in a zero-sum conflict with another; that is, each party can gain only at the expense of the other. A precautionary strategy consists of forecasting all possible actions by the adversary and the effects on oneself of each action, then determining the action that will maximize gain and minimize loss regardless of the opponent's action. The purpose of precautionary strategy is to accommodate the worst possible effect that an opponent can have on one's goal in a zero-sum conflict.

The evolutionary strategy is based on the assumption that subordinates can better adjust to a series of small changes than a quantum leap (Hayes, 1985). In using an evolutionary, rather than a revolutionary, strategy, the manager set-

ties for small inroads into a large problem, because the total improvement program is too threatening to be accepted by subordinates. A manager who opts for slow, steady progress toward a goal may have to forgo credit for innovative ideas and, instead, plant ideas among informal leaders who can convince rank-and-file workers to implement the needed change.

The chameleon strategy consists of framing management decisions in general terms, so that they can be interpreted differently at different times. In this way, a management decision can be used to guide employees over a protracted period, although changing environmental circumstances require frequent modification of response. For example, a decision "to support education of nursing personnel" can be interpreted at one point to mean that a hospital will serve as clinical laboratory for associate degree nurs-

MEMO CAPSULE

Decision Strategies

- Optimizing: Greatest possible gain
- Satisficing: Good enough solution
- Mixed scanning: Satisfice to remove least promising solutions then select best of remaining options
- Opportunistic: Solution chosen by problem identifier
- Do nothing: Waiting for the storm to pass
- Eliminate critical limiting factor: Remove most powerful obstacle to success
- Maximax: Best result under best circumstances
- Maximin: Best result under worst circumstances
- Mini-regret: Result offering least "surprise"
- Precautionary: Chose action that will maximize gain or minimize loss regardless of opponent's action
- Evolutionary: Make series of small changes leading toward goal
- Chameleon: Vague plan, adjusted to changing circumstances

ing students and at another time to mean that masters students will complete internships in the hospital's intensive care unit.

Freund (1988) claims that a manager's psychological type influences her or his decision-making style. According to Jung (1923), there are four dimensions of psychological type: the mental function of perception; the mental function of judgment; attitudes toward life; and attitudes toward the outer world. Of the polar opposites in each dimension, an individual tends to emphasize one and neglect the other. The polar opposite for perceptual processes are sensing and intuition. The polar opposites for the judgment processes are thinking and feeling. The polar opposites for attitudes toward life are extroversion and introversion. The polar opposites for attitudes toward the outer world are perceptive and judgmental.

Variation among all four dimensions creates 16 different psychological types. Managers of different psychological types make decisions differently. The Myers Briggs Type Indicator is a psychological test that can be used to determine an individual's dominant and auxiliary psychological type (Myers and McCauley, 1985). Managers whose preferred method of perceiving is sensing are present oriented, accurate observers, whereas those whose preferred perceptive method is intuition are future oriented, with a quick grasp of abstract relationships. Managers whose preferred judgment function is thinking are logical analysts of cause-and-effect relationships, whereas those who emphasize feelings are compassionate affiliators who value harmony. Introvert managers use their dominant cognitive function intrapersonally and display their auxiliary (less well-developed) cognitive function to the world, and so, may be underestimated by coworkers. Extrovert managers are action-oriented individuals who are stimulated by events and people in their environment. Managers with a perceptive orientation to the outer world are spontaneous, flexible, and open to influence; those with a judging orientation desire organization, order,

and situational control. Each manager's type preference will predispose her or him to process certain types of information and ignore others. Therefore, a manager should determine her or his psychological type through self-analysis or use of the Myers Briggs inventory and make a conscious effort to attend to the type of information that she or he is inclined to ignore when making managerial decisions.

STEPS OF DECISION MAKING

The first and often unrecognized step in decision making is to determine agency goals and priorities, because these establish the values on which management decisions are based. The second step is to perceive a challenge or problem that necessitates a decision. The third step consists of identifying criteria for a successful response to the challenge or problem. The fourth step is to search for possible alternative courses of action. The fifth step is weighing the alternatives to determine which best meets criteria for acceptability. The sixth step is to select one alternative. The seventh step consists of deliberating about commitment to the selected action. The eighth step is to implement the decision by taking action oneself or assigning another to take action. The ninth step is confirming the decision and adhering to the selected course despite negative feedback.

The first step, clarifying agency goals and priorities, is important, because a manager's decisions are rooted in personal values, and these should be consonant with agency purpose. Step two is important, because, unless the manager becomes aware of a challenge, she or he will maintain present action and see no need for decision making. Once threat is perceived, the manager scans available information to decide whether the challenge is pertinent to her or his concerns and must be attended to or is irrelevant and can be ignored. Accurate problem definition is crucial to effective decision making, because it limits decision rationale (Politser, 1981). It is important to allow enough time to

refine the question exactly, because careful problem definition may reveal the most desirable action, eliminating need for further investigation. However, it is impossible to obtain all facts about any problem, and the manager should be content with obtaining as much significant information as time and energy permit, then define the question as specifically as possible.

Step three, setting criteria for an acceptable solution, will guide the manager's thinking as she or he envisions means of moving from present threat to more satisfactory future circumstances. Acceptability criteria may suggest an effective problem solution, thus shortening later steps in the decision process.

The fourth step, search for possible alternatives, is second in importance to problem definition. The greater the number of alternatives generated, the greater the chance for a high-quality decision. In group decision making, member disagreement about alternatives is useful in stimulating imagination and generating innovative solutions. When weighing alternatives, the decision maker should actively search for pros and cons of available alternatives, because this information is needed for a maximin or mini-regret strategy. In comparing alternatives, each possible action should be contrasted with the current course to assess relative efficacy in meeting objectives. If no alternative meets the requirements for a satisfactory solution, the manager should investigate whether those requirements can be relaxed. When criteria are relaxed, modification of one alternative might render it acceptable. If no alternative is acceptable despite modification, the manager should return to step four to search for a hitherto unimagined alternative. When alternatives are weighed in step five, the underlying problem is examined again and again, and there are frequent reversions to step four for fresh alternatives.

Vacillation is common during step six, the selection of one alternative, because the decision maker is dissatisfied with the present state but

not fully committed to a new course. Finally, threat and indecision become so uncomfortable that the manager selects what appears to be the best way out of a bad situation. Even after making the selection, the manager will attend to any additional information that suggests a different alternative might be preferable.

There is a tendency to deliberate about commitment, step seven, because, when the manager informs others about the decision, she or he realizes the full import of changing course. There may be some loss from abandoning the present course, uncertain outcomes of change, and difficulty in rescinding a publicized decision. If the manager commits to the decision despite these anxieties, she or he will communicate the decision in a manner that advances professional welfare.

Decision implementation, step eight, is the point at which overt evidence of the decision becomes obvious to coworkers. When analyzing a decision process, implementation should be considered an integral part of the decision process, rather than process result.

The ninth step, adherence despite negative feedback, is a second confirmatory state. Immediately after announcing a decision, the manager experiences a brief period of elation, from allaying the anxiety caused by decision conflict. Then, information about new threats and opportunities causes the manager to doubt the recent decision. However, if the decision was made thoughtfully, the manager's doubts are short-lived. Quick reexamination of the pros and cons will confirm the decision. The manager then uses postdecisional bolstering to find fresh rationalizations to further reinforce the decision.

Although the decision process can be diagrammed as a nine-step sequence, it is often difficult to identify the current step. The basic definitional question recurs again and again throughout the process, because problem and possible interventions are inextricably linked (Grobe et al., 1991). The decision maker is likely to enter several feedback loops between steps

three and two, four and three, four and two, and five and four.

In group decision making the process is more difficult to define, because differences in ability, intellect, and experience keep members from moving through the same decision step simultaneously. Groups may have less difficulty with the seventh and ninth process steps (deliberating about commitment and adhering to the decision), because syntality renders group judgments resistant to change and protects members from external criticism.

Most experts advise a sequential, step-by-step approach to clinical decision making and caution nurses to avoid selecting one of several alternative actions until all problem causes and manifestations have been thoroughly explored. However, a study by Grobe et al. (1991) revealed that, in planning care for a chronically ill patient, experienced nurses considered problems and interventions simultaneously, rather than as separate steps in decision making. The researchers concluded that patient problems and nursing interventions are inextricably linked in nurses' sensory, short-term, and long-term memory, so that educators increase nurses' cognitive stress by instructing them to separate problem identification and problem solution during the decision process.

ROOT' AND "BRANCH" APPROACHES TO DECISION MAKING

Leavitt and Pondy (1974) describe two general approaches to decision making: (1) the rational-comprehensive, or "root," approach; and (2) the incremental comparison, or "branch," approach. In the root approach a manager starts each decision process with fundamental issues, agency goals and priorities, problem analysis, solution criteria, and decision theory and uses past experience to illuminate decision theory at each step in the process. In the branch approach, a manager who perceives a threat ignores agency goals, solution criteria, and scientific theory and makes the decision by building outward from the current situation in a series of small, incremental changes. In the

branch approach policy decisions are not made in a final once-and-for-all fashion. Instead, small policy decisions are made and remade endlessly, with each small-step decision moving the situation closer to the desired goal. A manager who decides policy through incremental steps avoids serious mistakes, because outcomes of each small decision are used to guide the next action. The branch method of decision making decreases the manager's need for facts (which are expensive to obtain), because at each decision point the manager requires only a few facts to determine the next small change in direction.

AIDS TO DECISION MAKING

There are several techniques to help managers to make high-quality decisions. A model is a symbolic abstraction; a verbal, mathematical, statistical, or structural representation of a system that clarifies system behavior and facilitates prediction and control (Boxerman and Serota, 1979). A game is a quantitative decision model that is used to identify competitive strategy in a situation where the decision maker and opponent have conflict of interest, that is, when one gains whatever the other loses. The game model enables a manager to determine a decision strategy that minimizes her or his losses regardless of the opponent's action.

Decision Trees

A decision tree is a mathematical tool that depicts related decision points and outcome probabilities as an interconnecting network of nodes and branches. First, the manager diagrams sequential decision points, possible states of nature, possible alternative actions, and possible outcomes for each action. Next, she or he differentiates events in the network that are under the manager's control (strategies) from those that cannot be controlled (states of nature). The manager assigns estimated probabilities for each state of nature and each payoff (terminal branch) in the network. On studying the decision tree, a manager can objectively analyze available courses of action, determine the costs of each action, compare the cost-effective-

ness of different actions, and select the alternative yielding the best outcome for the least cost.

Cause-and-Effect Diagrams

Another device that facilitates group decision making is the cause-and-effect diagram. This device is popularly referred to as a fishbone diagram, because the completed diagram resembles a fish skeleton, with the effect or problem as the fish head, and major problem causes as fish fins and tail (Glendon and Ulrich, 1992). The cause-and-effect diagram was developed in 1943 by Ishikawa at the University of Tokyo to help engineers to analyze relationships among multiple problem factors (Sarazen, 1990).

Generally, when a quality circle or primary work group uses a cause-and-effect diagram to study a performance or productivity problem, they search for only five or six *major* problem sources. For example, a quality circle composed of nurses in a rehabilitation unit identified the following causes for a high incidence of pressure ulcers in patients with spinal cord injury:

1. Night nurses don't adhere to two-hour turning schedule.
2. Bed linen is frequently soiled because of leakage of condom catheters.
3. Support pillows are improperly positioned when patient is turned.
4. Nurses don't do daily skin check to identify pressure signs.
5. Patients fail to do every 20 minute push-ups when sitting in wheelchair.

Members of the quality circle then wrote each cause as a branch flowing to the main vector (spinal column) pointing to the problem (fish-head) thus:

The causes were ordered, from head to tail of the diagram, to reflect their relative importance in problem creation. Group members agreed that failure of night nurses to adhere to the prescribed turning schedule and frequent soiling of bed linen were the primary causes of the patients' pressure ulcers, so these causes were located closest to the identified problem (fish-head). Improper placement of support pillows was least important of the causative factors, so this contributor was located at the greatest distance from the defined problem.

The simple, or one-level, cause and effect diagram can be expanded to include minor factors that predispose to the major problem causes (Goldberg and Pegels, 1984). The minor causes, which are often less obvious than major causes, can usually be identified by group members through brainstorming. The diagram of major causes for spinal cord patients' pressure ulcers was expanded by the quality circle group to show factors that contributed to each major cause, thus:



Sarazen (1990) claims that cause-and-effect diagrams can be used effectively apart from the group setting. A head nurse who identifies a performance or productivity problem on the nursing unit could post a sheet of newsprint in the nurses' lounge with the problem statement written as fish head, and blank lines to represent spinal column, fins, and tail; with a note asking personnel to write in their impressions of major and minor problem causes over a short period (five to seven days). The head nurse could then present the completed diagram to employees in the next staff meeting and invite further discus-

sion of problem causes and promising solution possibilities.

Brainstorming

Brainstorming is a form of free association generated during group interaction to stimulate members to develop many new ideas within a short time. Brainstorming is intended to break through participants' repressions and habitual thought patterns to force production of new and unusual ideas about a problem. Diversity among group members increases variety and novelty of ideas generated through brainstorming. Group members are inhibited during brainstorming by the presence of a subject "expert." Presumably, members believe that experts prefer an exhaustive, analytical approach, rather than a rapid, superficial approach to problem solving (Dressler, 1976).

Nominal Group

The nominal group process is a method by which group members identify and prioritize goals under nonthreatening conditions (Delbecq and Van de Ven, 1976). Low-status group members are reluctant to reveal their opinions about a controversial issue for fear of ridicule from high-status group members. To minimize the effects of status difference on decision making, the nominal group technique combines noninteractive and interactive member deliberations. Although seated together in a group, each member on his or her own lists suggests goals for a collective enterprise (such as the operation of a nursing department) on a sheet of paper. Then, in round robin fashion, the leader asks each member to share one of his or her individually identified goals with the group. The leader writes these goals, suggested by one member after another, on a blackboard or flip chart. After several rounds, all goals from every member's list are posted for all to see. Then the group discusses each goal in turn, clarifying and elaborating each. When all goals on the composite list have been discussed, the group votes to determine four or five highest-priority goals to be

addressed in a specified period. Research has shown that noninteracting groups (part one of nominal group process) are more effective in generating suggestions than interacting groups (part two of nominal group process) and that interacting groups are useful in clarifying and resolving opinion differences (Fox and Fox, 1983).

Delphi Surveys

The Delphi method is another means of eliminating the inhibitory effects of status differences and personality incompatibilities on group decision making. In the Delphi method decision makers never meet face to face. In fact, decision makers remain anonymous throughout a multicycle decision process. The leader mails a questionnaire to key employees, soliciting suggestions for a collaborative project. After questionnaires are returned anonymously to the leader, she or he summarizes responses and distributes the summary to the same key employees (including respondents' direct quotations to clarify differing viewpoints). With this summary, the leader mails a second questionnaire, asking employees to react to goals obtained from the first questionnaire: to vote for or against each goal, indicate agreement or disagreement with priorities, and explain reasons for any departure from majority view. When the second questionnaire is returned anonymously to the leader, she or he summarizes employees' responses and reports the refined, reprioritized goals to the same employees.

Administrations of a questionnaire with summarized responses of the previous questionnaire are repeated until consensus is reached on a handful of goals. After three or four questionnaire cycles, the goals have been modified and reordered in such a way that the majority of employees commit to the goals. With the Delphi technique, decision makers respond to each goal on its own merit, rather than reacting to their opinion of the person who suggests the goal.

Fishbowling

Fishbowling is a method of group decision making that improves decision quality by ensuring a fair hearing of each member's opinions and suggestions. Decision makers sit in a circle surrounding an empty chair. The leader explains that no member of the group can start discussion without taking the central chair. While occupying the central chair an individual can speak without interruption to introduce a topic and explain her or his viewpoint on the matter. After concluding the presentation, the person in the central chair answers members' questions about the topic. Any member may ask questions of the central person, but may not interrupt her or his response nor address remarks to another member. The presenter may not relinquish central position until her or his viewpoint is understood by all others. Then the presenter may quit the central chair and return to a chair in the circle. At this point another group member may take the central chair, express her or his viewpoint without interruption, answer other members' questions, and so on. When all members have had opportunity to occupy the central chair and speak without interruption, any member may take the center position to recommend a particular action relative to the discussion topic. A majority vote in support of a recommendation of any member who occupies the central chair closes the session. The fishbowling technique provides for reasoned and orderly decision making by eliminating distracting cross talk and irrelevant discussion.

Decision Analysis

Decision analysis is the process of decomposing a complex problem into a series of simpler steps and of calculating the probabilities of certain and uncertain events as a means of selecting the optimum course of action. A study by Shamian (1991) revealed that nursing students who were tutored in steps of decision analysis were more likely to make clinical decisions in accord with those of nursing experts than were untutored students. However, instruction

in decision analysis is likely to be most effective for those nurses who have a strong desire for decision autonomy (Dwyer et al., 1992).

MEMO CAPSULE

Some Decision Methods/Tools

- Decision tree. Predict outcome value of alternative actions.
- Brainstorming. Generate multiple ideas for later refinement.
- Nominal group. Generate independent ideas that are then analyzed by a group.
- Delphi survey. Summarize opinions of anonymous experts.
- Fishbowling. Give full hearing to ideas of each participant.

Some experts claim that intuition is necessary for truly creative decisions (Bastick, 1982). Intuition has been defined as the ability to select important detail from random events (Burns, 1987); the ability to detect hidden relationships in a complex whole (Loye, 1983); the ability to make decisions on the basis of incomplete or ambiguous data (Benner, 1984); and the knowledge gained without rational thought (Umiker, 1989). A study by Rew (1988) revealed that critical care and home health nurses used intuition in making patient care decisions. Intuitive experiences were described in both global and specific terms: "You just know there's something wrong," and "I knew she was going to arrest." The studied nurses operated on their intuitions by gathering additional information about the problem, attempting to validate intuitions through discussion with a nurse expert, reporting intuitions to the patient's physician, or preparing to implement emergency measures.

Umiker (1989) claims that intuitive decision making can be enhanced by the following:

1. Working on several problems and alternative solutions at the same time

2. Creating a quiet time in which to shut off logical thinking and encourage subconscious operations
3. Concentrating on the problem immediately on awakening and immediately before falling asleep
4. Redefining the problem frequently, describing it more specifically on each occasion
5. Using visual imagery, rather than words, to conceptualize the problem

Shamian (1991) found that student nurses who received four hours of didactic and interactive instruction in decision analysis prioritized clinical interventions more in accord to expert opinion than did students without such instruction. Furthermore, students instructed in decision analysis techniques prioritized interventions more consistently than the uninstructed. Researchers concluded that diverse prioritizations by untaught students resulted from their individualistic and unstructured decision methods.

INDIVIDUAL VERSUS GROUP DECISION MAKING

Part of decision strategy is to decide *who* should make a particular decision. Often the manager should make a decision, because she or he carries legal responsibility for outcomes, possesses necessary knowledge about solution outcomes and acceptability criteria, or because there is insufficient time for a group decision.

When the leader lacks the required knowledge or skill or subordinates' commitment is essential to successful outcome, an employee group should make the decision. When time is available for discussion, a group decision is usually superior to an individual decision, because a group possesses broader experience and greater variety in problem approach. By discussing alternative actions and voting for preferred action, members also become committed to the decision that they must later implement.

On the other hand, there are disadvantages

in group decision making. First, a group decision process is longer than an individual decision process, so that group decisions are more costly. Second, some groups exert strong social pressure for conformity, thereby decreasing the probability of innovative decisions. Third, an exceptionally strong member may dominate the discussion, preventing the free give-and-take necessary for high-quality decisions. Often, decisions by consensus are of lower quality than individual decisions, because the solution most acceptable to the group is simply a compromise between best and worst alternatives.

To improve group decision making, the nurse executive or administrator should guide committee action. The scope and authority of each nursing committee should be specifically defined, so that members know whether their task is to analyze problems, offer suggestions, or set policy. Each committee should include representatives from all involved factions and persons with the full scope of experience and skill needed to execute the group task. The appointed chairperson should be trained in group leadership skills. The chairperson should circulate meeting agendas in advance, provide discussants with pertinent research reports and thought provoking articles, keep discussion on track, encourage participation by all members, and distribute minutes to all members after each meeting.

Negotiated Decision Making

Lazare and Eisenthal (1979) advocate that nurses use a negotiated approach in making patient care decisions. Roberts and Krouse (1988) designed a three-phase process for a nurse to use in actively negotiating a treatment decision with a patient. In the first phase, the nurse confers with the patient to elicit her or his requests and expectations for care and treatment. In the second phase, the nurse structures active interchange of information and opinion between patient and himself or herself as each ask questions and analyze information contained in the other's responses. In the third phase, nurse and

patient reach consensus about a treatment plan that meets the objectives of both patient and nurse. In a study based on a simulated health care situation, patients who actively negotiated treatment decisions with a nurse practitioner experienced stronger feelings of situational control than patients whose treatment decisions were made by the nurse practitioner without patient involvement (Krouse and Roberts, 1989). The researchers concluded that, because feelings of control over self-destiny influence satisfaction with care and compliance with treatment, nurses should use actively negotiated decision making in deciding patient treatment. In similar fashion, nursing personnel are likely to feel greater situational control if managers use actively negotiated decision making when conferring with individual nurses about such employment issues as shift rotation, patient assignment, in-service education, and job enlargement or enrichment.

METHODS OF DECISION MAKING

Vroom and Yetton (1973) developed a decision model that relates leadership styles to problem characteristics and generates rules for decision making. Using this model, a manager selects a decision method that depends on the manager's personal characteristics, nature of the problem, and subordinates' capabilities. The methods are as follows:

Autocratic I. The manager solves the problem or makes the decision herself or himself, using whatever information is available at the time.

Autocratic II. The manager recognizes a lack of certain vital information about the problem, obtains the needed information from subordinates, and solves the problem or makes the decision herself or himself. The manager may or may not tell subordinates about the problem for which information is sought. If subordinates are told about the problem, the manager makes it clear that she or he seeks information rather than opinions from subordinates.

Consultative I. The manager discusses the

problem with subordinates individually and obtains information and suggestions from them without bringing them together as a group. The manager then makes a decision that may or may not represent subordinates' opinions and preferences.

Consultative II. The manager discusses the problem with subordinates as a group to obtain their ideas and suggestions. The manager then makes a decision that may or may not reflect subordinates' influence.

Group II. The manager acts as a discussion leader, discussing the problem with subordinates as a group.

After the subject is thoroughly explored, the group decides what action to take, and the manager accepts whichever solution the total group will support. (Vroom and Yetton, 1973) The Autocratic I and Autocratic II methods involve subordinates only minimally; therefore, they result in more rapid decision making than the other three methods. The consultative and group methods involve subordinates more intimately in the decision process; therefore, subordinates are more supportive of decisions reached through these methods than those reached through autocratic methods. The Group II method results in strongest commitment of subordinates to the final decision but is the most time-consuming approach (LaMonica and Finch, 1977).

Vroom and Yetton identified seven situation variables that determine which decision method is best suited for a particular problem:

1. Importance of decision quality to agency success
2. Degree to which the manager possesses information and skills needed to make the decision
3. Degree to which the problem is structured
4. Importance of subordinates' commitment to effective decision implementation
5. Likelihood that an autocratic decision by the manager will be accepted by subordinates

6. Strength of subordinates' commitment to agency goals
7. Likelihood of subordinates' conflict over the final decision

Experimental use of the Vroom and Yetton model produced the following decision rules:

1. If decision quality is important to agency success and the manager lacks necessary information or skill, don't use the Autocratic I method.
2. If decision quality is important to agency success and subordinates lack commitment to agency goals, don't use Group II method, because managerial control of the decision is needed to ensure decision quality.
3. If decision quality is important to agency success, the manager lacks necessary information or skill, and the problem is unstructured, interaction is needed among subordinates who have full knowledge of the problem; therefore, don't use the Autocratic I, Autocratic II, or Consultative II methods.
4. If subordinates' acceptance of the decision is necessary to effective implementation and it is not certain that an autocratic decision by the manager will be accepted by subordinates, don't use the Autocratic I or Autocratic II methods.
5. If subordinates' acceptance of the decision is critical to successful implementation, subordinates are not likely to accept an autocratic decision by the manager, and subordinates are apt to disagree about the solution, don't use the Autocratic I, Autocratic II, or Consultative II methods, because face-to-face interchange among subordinates will be needed to resolve conflict.
6. If decision quality is unimportant to agency success, but acceptance is critical to implementation and subordinates are unlikely to accept an autocratic decision by the manager, don't use the autocratic

or consultative methods of decision making, because only the Group II method will maximize acceptance of the decision.

Vroom and Jago (1988) revised the Vroom and Yetton decision model to provide additional program attributes, convert some dichotomous variables to continuous variables, eliminate the decision rules, and provide mathematical formulae for identifying the preferred problem solution. The twelve problem attributes of the Vroom and Jago model are:

1. Quality requirement
2. Commitment requirement
3. Leader information
4. Problem structure
5. Commitment probability
6. Goal congruence
7. Subordinate conflict
8. Subordinate information
9. Motivation/time
10. Motivation/development
11. Time constraints
12. Group or individual effects

Attributes 1 through 10 are measured on a five-point Likert scale (strongly disagree, disagree, undecided, agree, strongly agree); attributes 11 and 12 are answered Yes or No. The introduction of continuous variables and mathematical formulae permit computer manipulation of attribute scores to calculate the ideal decision method for the identified solution criteria. Recently, the Vroom and Jago model has been adapted to permit manual scoring by managers who lack computer support.

A study by Dwyer et al. (1992) revealed that clinical nurses in one hospital differed markedly in their preference for autonomous decision making. These experts caution that nurses with strong autonomy needs may respond well to the increased responsibility and accountability associated with shared governance, decentralized management, and primary nursing; but nurses with no desire for decision autonomy are apt to be frustrated by job expectations incorporated

RESEARCH BRIEF

Intuition in Clinical Decision Making

Purpose: Explore intuitive experiences of nurses in critical care and home care setting.

Subjects: Nonprobability sample of 56 RNs in two critical care units and one home health agency.

Method: Subjects were interviewed to determine their definitions of intuition, and descriptions of how they had experienced intuition while implementing each step of the nursing process. Interviews were tape recorded, transcribed, and analyzed. Ethnograph was used to code the principal themes in subjects' responses, categorize intuitive episodes as either "feeling" or "knowing," and classify nurses' responses to intuitive experiences.

Findings: Most subjects described intuitive experiences in both global terms ("a feeling that something's going on that the person isn't talking about") and specific terms ("a nagging, un-

comfortable feeling"). Subjects experienced intuition more frequently during assessment and implementation phases of the nursing process than during planning or evaluating phases. The consequences of subjects' intuitions were categorized as affective ("Feel relieved," "Feel scared"); cognitive ("Reflect hard," "Study lab work"); or behavioral ("Watch patient more closely," "Talk it over with head nurse").

Application: Experienced nurses use intuition in making clinical decisions. However, nurses risk losing credibility when reporting their intuitions to some health care workers. Nurse executives and educators can teach nurses to respect intuitive understandings, validate wholistic/intuitive knowledge with analytic/objective data, and communicate synthesized hard-soft patient information to other members of the multidisciplinary care team.

Source: Rew, L. Intuition in decision making. *Image Journal of Nursing Scholarship* 20(3):150-154, 1988.

into these management systems. It may be possible to increase nurses' desire for decision autonomy through carefully tailored programs of organizational socialization and professional mentoring (Pinch, 1985). However, for some individuals, attitudinal change is a slow and painful process. Consequently, nurse executives who implement broad-scale participative management and staff-empowerment programs should design jobs that will appeal to nurses who have a low, as well as a high, desire for decision autonomy.

SUMMARY

The manager can increase personal and subordinates' decision-making ability by using such decision aids as a decision tree, brainstorming, nominal group, and the Delphi technique. The manager can prevent premature and poor-quality decisions by learning to identify the uncertainty and risk associated with each decision,

recognize predecisional conflict felt during deliberation, find means of coping with predecisional conflict, and locate the information required to reduce decisional uncertainty and risk. A manager can improve the overall quality of clinical and managerial decisions by choosing a decision strategy that best meets situational demands (satisficing, opportunistic, do nothing, maximax, maximin, mini-regret, or evolutionary).

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Nursing Research

*Take no random action; pursue no important project
without philosophic consideration*

MARCUS AURELIUS

OBJECTIVES

After reading this chapter, you should be able to:

1. List three factors that block nurses from using research.
2. Outline the contents of a continuing education program on research implementation for staff nurses.
3. List four job tasks to be included in the job description of a clinical nurse researcher.

As a group, nurses desire full professional status and collegial relationships with professionals in other health disciplines. The knowledge base for professional practice consists of research-based information. To optimize nursing outcomes, clinicians should use research-based interventions to meet patients' needs for care, cure, and comfort. The appearance of a new disease, such as AIDS, and the development of new treatments, such as immunosuppression, create patient care problems that can be solved only through the application of new knowledge. Research is the fundamental source of new knowledge (Fox,

1982). Therefore, ongoing clinical nursing research is needed to solve new practice problems and improve nurses' handling of familiar problems.

At mid-century, there were only a few nurse scholars ready to report results of their own scientific investigations in the new journal, *Nursing Research*. Because nurse researchers were few and had varied interests, most worked singly, on different and unrelated nursing problems. During the past 40 years, many nurses obtained research skills through doctoral preparation, and many with advanced preparation now spend a major portion of working time in

planning, implementing, and communicating research

Research consists of three major activities: generating knowledge, disseminating knowledge, and using knowledge. Experts claim that graduates of Ph.D. nursing programs are prepared to conduct basic, applied, and clinical research; graduates of D.N.S. and Ed.D. programs are prepared to conduct applied and clinical research; graduates of masters and higher-degree programs are prepared to disseminate research findings; and baccalaureate nurses are prepared to use research findings (Fawcett, 1985).

Many nursing studies have used such small samples that research results could not be generalized beyond study subjects. However, several metaanalyses have demonstrated that research-based nursing interventions yield better patient outcomes than conventional or traditional nursing measures (Devine and Cook, 1983; Heater et al., 1988; Massey and Loomis, 1988). However, published research findings are not quickly and consistently integrated into nursing practice (Ketefian, 1975). Therefore, some experts claim that available nursing research has had little material effect on nursing care quality (Briones and Bruya, 1990; Crane, 1985). Ketefian (1975) reported that, despite published research indicating optimal thermometer placement time, only 1 of 87 nurses were aware of this information. Kirchhoff (1982) discovered that, despite published research support for discontinuing certain coronary care precautions, only 24 percent of nurses permitted coronary patients to drink ice water, and only 35 percent took rectal temperatures on coronary patients. Brett (1987) discovered that some research findings are more widely implemented than others. Of 14 research-based innovations, five were implemented by 70 percent or more of nurse subjects, whereas four others were implemented by less than 40 percent of them. For example, 95 percent of nurses understood the importance of maintaining a closed sterile system for urinary drainage, and 79 percent consistently did so. On the other hand, 94 percent of nurses were aware

that an intravenous cannula should be changed within 48 hours to minimize phlebitis, but only 27 percent consistently did so.

Apparently, there are several reasons for the research-practice gap in nursing. Phillips (1986) points out that nursing research and practice arise from different philosophical traditions and appeal to different types of persons. Nursing research is rooted in the tradition of science; nursing practice in the tradition of service. Consequently, researchers are concerned with ideas, concepts, theories; clinicians are concerned with the practicalities of patient care.

The environmental climate of the nursing care settings also often discourages research activities. There have been several studies of factors that foster and hamper nurses' conduct and use of research. Miller and Messenger (1978) found that major blockers were difficulty in obtaining research on a topic of interest and findings that were too time-consuming or costly to implement. Funk and associates (1991) reported that major blockers were nurses' lack of authority to change patient care procedures, lack of time to implement new ideas, and lack of support from other staff members. Bostrom et al. (1989) found that clinicians were deterred from research implementation by lack of time, lack of knowledge, and lack of research support services in the agency. Champion and Leach (1989) reported that clinical nurses were most likely to use research findings when research was conducted in the agency, they had work time to read research reports, and administrators supported their efforts to implement study results.

Research has shown that innovation adopters pass through five steps before incorporating new knowledge into daily practice. These are the steps of knowledge, persuasion, decision, implementation, and confirmation (Rogers, 1983).

In the knowledge step an individual acquires new information, together with some understanding of its significance and possible application to practical work. In the persuasion step

MEMO CAPSULE**Causes for Research-Practice Gap**

- Research and practice reflect different philosophical views.
- Research topics are chosen by researchers, rather than practitioners.
- Staff nurses lack authority to change care policies and procedures.
- Staff nurses lack time to read and discuss research study reports.
- Staff nurses have difficulty understanding research and statistical jargon in reports.

an individual develops positive attitudes about the attractiveness, desirability, and utility of the new knowledge. During the decision step an individual employs the information on a trial basis to explore its full ramifications. During the implementation step an individual employs the knowledge on a more permanent basis, changing the practice situation to accommodate the innovation. During the confirmation step an individual gathers evidence to reinforce the conviction that the new information is a valuable addition to practice. It is likely that nurses pass through these stages when implementing research-based practice innovations.

MEMO CAPSULE**Steps of Innovation Adoption**

- Knowledge: Aware of new information and possible significance to practice
- Persuasion: Positive attitudes about importance and utility of new knowledge
- Decision: Trial use of new information to test relevance to practice
- Implementation: Change of care setting to facilitate use of the innovation
- Confirmation: Gathering of evidence to confirm appropriateness of using the innovation

COLLABORATIVE RESEARCH

As nurse researchers increased in number and communicated their accomplishments through publications and conference presentations, they recognized the advantages of collaborative over individual approaches to research. Between 1952 and 1980, multiauthored articles in nursing research journals rose from 7 percent to 40 percent of the total (Brown et al., 1984). In the 1980s, dwindling research funds caused health agencies to advocate collaborative research projects as a means of conserving scarce financial and personnel resources (McElmurry and Minckley, 1986).

To maximize faculty members' funding opportunities and research productivity, some colleges of nursing organize the school's research program around one or two nursing problems. When this is done, faculty are expected to relate their own and their students' research studies to the highlighted topic. This practice is advantageous for several reasons. When faculty and students concentrate their research in a narrow area, it is easier to recruit qualified faculty, because researchers are attracted by the possibility of collegial support from researchers with similar interests. Focusing the school's research efforts on a single topic facilitates recruitment of graduate students, as well. A cadre of researchers on a single topic tend to publish multiple articles on various aspects of the topic. These publications and related conference reports make it possible for influential nurses to see the school as a center for scholarship on the highlighted topic. Graduate students are attracted by opportunity to study under experts in their field of interest.

Moreover, when faculty in all departments have ongoing studies and published research on a common theme, expert support is readily available to faculty members who seek external research funding. Equipment, measurement tools, and investigative procedures used by one researcher are likely to be useful to other faculty and student researchers. Furthermore, it is easier to compare and combine the results of several

studies conducted by members of the same institution than by members of different institutions because of greater ease in formal and informal communication between researchers.

A collaborative research project is one in which several investigators from the same or different organizations invest their varied talents to study multiple aspects of a single problem. Collaborative efforts are increasing in popularity because in this way it is possible to study a large number of subjects in a short time, to obtain a heterogeneous subject pool, to replicate a study quickly in different health agencies, and to provide computer and statistical support to investigators in small agencies that lack such facilities (Bergstrom et al., 1984).

MEMO CAPSULE

Advantages of Collaborative Research

- Permits study of large numbers of subjects in short time.
- Facilitates recruitment of qualified faculty-researchers.
- Enhances recruitment of graduate students.
- Experienced researchers mentor beginners.
- Research team members share information, tools, skills.
- Facilitates multidisciplinary investigation of health care problems.

Despite these advantages, problems can arise in a collaborative research project. The need for frequent face-to-face, telephone, and computer communication between investigators is expensive, especially when researchers are located in different institutions. Using multiple data collectors (trained by a different investigator at each site) raises questions of data reliability. Consequently, detailed protocols should be developed and used by all data gatherers at every site to ensure the standardization of study pro-

cedures. Interinstitutional research necessitates obtaining study approval from several institutional review boards, each of which is likely to have different policies, procedures, and forms. In an externally funded collaborative project, questions may arise concerning the allocation of budgeted salary, equipment, and supply funds among several study sites. The problem is compounded when the organizations' grants-management offices use markedly different accounting policies and schedules.

In a collaborative study, the type, amount, and timing of investigators' contributions vary. This difference in effort, and the fact that a single study may give rise to several reports and publications, make it advisable for all study participants to discuss the research duties and publication or authorship rights *before* the study is initiated. In one study of nurses engaged in collaborative research, 43 percent reported disagreements within the research group. Most disagreements focused on the roles and responsibilities of various group members, order of authors' names on study reports, and identity of paper presenters (Thiele, 1989).

MEMO CAPSULE

Disadvantages of Collaborative Research

- High cost of communicating among researchers at different sites
- Difficult to standardize procedures used by multiple data gatherers
- Difficult to coordinate contributions of different investigators, at different times
- Confusion, disagreement about allocation of research support funds

In order for several members of the same or different institutions to pool their talents in a common research venture, leaders of the involved organizations should develop guidelines

for collaborative research. Research participants should follow these guidelines in constructing a written agreement that explicates the responsibilities and rights of each party in conducting the study and publishing results (Thiele, 1989).

The National Center for Nursing Research (NCNR) has attempted to focus nursing research talents and efforts on a few, highly significant nursing problems. In 1988 an NCNR-convened group of nurse scientists identified the following as broad priority areas for federal funding: (1) low birth weight; mother and infant issues; (2) HIV infection; (3) long-term care for older adults; (4) symptom management; (5) information systems; (6) health promotion; (7) technology dependency across the life span (Hinshaw et al., 1988). The NCNR staff members advocated that criteria be used to determine "promising dimensions" for research, that is, to set priorities for research funding. They advised that a preferred area for nursing research is one that:

1. Represents a major current or future health care need.
2. Exists on the cutting edge of science, with the potential to generate new knowledge.
3. Constitutes an opportunity for nursing to make a unique contribution to basic research.
4. Offers potential for nursing research to make a unique contribution to resolution of a health care or health system problem.
5. Represents a costly health care burden for patients and care-delivery systems and provides potential for cost savings.
6. Provides opportunity for training nurse scientists.
7. Relates to nursing interests and receives minimal attention from other DHHS agencies (Bloch, 1990).

In addition to colleges of nursing and funding agencies, nursing specialty groups sometimes establish research priorities for group members. Graduate programs and research studies in

nursing administration were popular in the 1940s and 1950s. When nursing's educational emphasis shifted to clinical nursing issues in the 1960s and 1970s, education for and research about nursing administration were devalued, underfunded, and ignored by most scholars. In the 1980s, demands for cost containment and difficulty in managing nursing resources in increasingly high-tech, high-pressure, high risk health care settings resurrected interest in nursing administration research. However, the number of nursing administration problems exceeded the time and resources of available researchers. Therefore, members of the Council on Graduate Education for Administration in Nursing (CGEAN) used brainstorming and Delphi surveys to identify concepts to be included in a definition of nursing administration, specify administration questions requiring research, and establish priorities for researching those questions. The research questions given highest priority in the Delphi survey were:

1. What are cost-effective components of clinical nursing care that enhance patient satisfaction, decrease complications, and shorten hospital stay?
2. How can nursing research in a practice setting be used to decrease costs, improve care quality, increase patient and nurse satisfaction?
3. What is the relation of patient acuity to care costs and nursing resource need?
4. How is nursing productivity measured in units of service or nursing care hours, and how do these measures compare with patient care quality?
5. What are the direct and indirect costs of providing nursing services for patients in different intensity classifications?
6. What are alternative approaches for measuring nursing intensity and patient need for nursing services?
7. How are intensity of nursing care, patient characteristics, and cost of nursing services related?

8. How can nursing costs be effectively and efficiently estimated?
9. What education and skill mix of nurses provides highest-quality care and is most cost-effective in health care agencies of varying size, purpose, organization, and location?
10. What is the revenue-producing capability of nursing services?

The most illuminating feature of this list is the fact that eight of the top 10 administration research priorities relate, in some way, to health care costs.

ENCOURAGING CLINICIANS TO USE RESEARCH

Nursing leaders have employed various methods to stimulate nurses' use of research findings. Some are designed to change clinical nurses' knowledge, skills, attitudes, and behaviors. Others are intended to alter the nursing care environment so as to facilitate a more scholarly approach to nursing practice.

Use of research results is greatest when the researcher-user system is linked in reciprocal fashion to the knowledge-generating system (Havelock and Havelock, 1973). Therefore, nurse administrators should invite nurse researchers to ask clinicians what new knowledge they need to solve professional practice problems. Then, nurse researchers should implement studies to obtain the needed information. Ideally, clinicians should assist researchers to define the research question, identify significant variables, determine study sample, select data-gathering instruments, gather data, analyze and interpret data. Nurse researchers should also guide practitioners in clinical trials of research findings, and researchers and clinicians should together disseminate research results to potential users. Nurse managers should support dissemination of research results by providing clinicians paid time and travel expenses for presenting research results in conferences and poster sessions (professional conferences in which nurses publicize research study findings

and practice improvements through a display of posters that describe the background, purpose, methods, and outcomes of research studies and patient care or educational projects). They should increase the social rewards for research participation by helping clinicians to publicize their research activities through radio and television announcements and newspaper feature stories (Butts, 1982). Smith and Diekmann (1987) describe a research fair as a means for kindling research interest in nursing staff. A fair could be used to disseminate nursing research findings to members of other health disciplines, too.

Several studies show that using a health facility as study setting for multiple internal and external researchers motivates nurses' interest in research (Chaska, 1983; Egan et al., 1981; Pettengill et al., 1988). According to the social interaction model of innovation diffusion, a change target's network of social relationships has a major influence on the target's adoption of new attitudes and behaviors. Clinical nurses are change targets for an administrator who hopes to enhance the nursing department's research productivity (Crane, 1985). When staff nurses have regular and frequent contact with nurse researchers in the clinical area, they see research as an important aspect of the nursing role and, therefore, adopt the attitudes and behaviors modeled by nurse researchers.

A nurse administrator can increase the nursing department's staff's research productivity by organizing a nursing research office under the direction of a doctorally prepared clinical nurse researcher (McKay et al., 1984). The primary responsibility of the clinical nurse researcher should be to assist clinicians to conduct and use research (Knafl et al., 1987). The clinical nurse researcher's specific job duties vary from one organization to another but often include conducting nursing studies; helping other nurses to plan and implement studies (Hagle et al., 1986); teaching research skills and techniques to clinicians (Stetler, 1984); and directing the agency's quality-improvement and infection-control

programs (Larsen, 1983). Interestingly, nurse administrators expect clinical nurse researchers to stimulate staff to conduct and use research, but some clinical nurse researchers perceive riddle nurse managers as having the most influence on staff nurses' research participation. In a survey by Hetterin and associates (1982), nurse researchers saw Veterans' Administration nurse administrators and educators as having a major responsibility for knowing about research-based practice innovations and sharing this information with staff. After a nursing research office is established, a network of clinical, administrative, educational, and research specialists should be organized to identify appropriate research topics, review research proposals, secure needed research supports, disseminate research reports, and facilitate the clinical application of research (Hunt et al., 1983).

Some authorities differentiate nursing research activities from the monitoring of nursing care quality (Smeltzer and Hinshaw, 1988). These experts claim that quality-monitoring activities are intended to evaluate and correct current nursing problems, whereas research is intended to identify causal links between variables and generate information for policymaking. Other experts claim that quality-assurance activities and research are different aspects of nursing scholarship. These view quality-monitoring activities as the first step in nursing research (i.e., identification of questions to be answered through controlled investigation). A strong, decentralized quality-improvement program can stimulate nursing research in the same agency. Responsibility for quality monitoring gives staff nurses valuable experience in identifying nursing care problems; identifying the variables underlying problems; searching the literature for information about a specific nursing problem; gathering data about nursing interventions and patient outcomes; and writing reports of monitoring results. Repeated experiences of this type stimulate the curiosity and objectively needed for participation in nursing research.

The Conduct and Utilization of Research in Nursing (CURN) project demonstrated that it is possible to link nurse clinicians with practice problems to nurse researchers, so that the two groups can collaborate in implementing clinical research of interest to both. For such collaborative research to succeed, the involved service agency and educational institution should negotiate a contract that legitimizes participation by employees of the two organizations and ensures that clinicians are given the time and research support (library, computer services, statistician consultation) needed for project success (Sneed, 1987).

Presently, there are numerous data bases to acquaint researchers about significant nursing problems, variables related to each, studies relating to the topic, research methods and tools for studying the problem. Some of these data bases are in printed form, books and journals. Others are computerized: research abstracts available on MedLine and CINAHL (Kilby et al., 1980). Unfortunately, print sources, like books on research and statistics, expensive research journals, and unpublished dissertations, are not generally available outside of medical centers. Without a personal computer and modem hookup to a major health science library, the research abstracts on MedLine and CINAHL are not available to nurses in rural and nonmetropolitan areas. Even in a metropolitan medical center with mainframe computer, research journals, and statistical software, clinicians who lack library and computer skills will have limited access to available research reports.

Many health science libraries have installed computer terminals and software programs to facilitate electronic literature searching by end-users. Fortunately, many health agencies have computerized patient records, billing, laboratory, staffing, and supply systems. A clinical nurse who uses computerized nursing and management information services can easily master a computerized library search program. Unfortunately, the rapidly escalating costs of scientific

periodicals has made it necessary for some health science libraries to decrease their journal subscriptions. Nursing specialization has increased the number of nursing journal titles requested by library patrons. Shrinking budgets and growing patron demands may cause a library to cancel a journal that contains valuable nursing research reports. The interlibrary loan service may compensate, to some degree, for gaps in a library's nursing journal collection. However, funds for this service are also shrinking.

A staff-development program to prepare clinicians for the conduct of research should be ongoing, long-term, and include the following topics.

1. Identifying a research problem from operational data
2. Implementing a literature review process
3. Choosing a nursing theory or model to guide the study
4. Defining significant problem variables
5. Formulating a research question or hypothesis
6. Selecting a research approach: qualitative or quantitative
7. Constructing a study design
8. Selecting or constructing data-collection tools
9. Planning study methods and procedures
10. Pilot-testing the study design and tools
11. Conducting the study
12. Summarizing and analyzing study findings
13. Drawing conclusions from analyses
14. Disseminating research results

Ideally, an experienced nurse researcher should educate clinical nurses in research skills and techniques. However, the nurse manager should attend all sessions of the staff-development program on research. In addition to textbooks on nursing research, a manager can find useful information on research concepts and techniques in many nursing periodicals. There are journal articles relating to determining the

validity of study tools and methods (Lynn, 1986; McDaniel, 1988); using client advisory groups to plan studies (Damrosch and Lenz, 1984); differences between volunteer and random samples (Wewers and Ahijevych, 1990); survey methodology (Crosby et al., 1989); telephone interviews (Howard et al., 1988); focus groups (Kingre et al., 1990); pilot studies (Prescott and Soeken, 1989); data analysis (Verran and Ferkenich, 1989); preparing a research poster (Ryan, 1989); and disseminating research results (Funk et al., 1989).

MEMO CAPSULE

Support Nurses' Research Implementation

- Active quality-improvement program: Nurse managed, unit based
- Library holdings: Research books and journals
- Computerized library search program. Medline, CINAHL
- Nursing Research Office: Headed by doctorally prepared nurse researcher
- Computer facility: Mainframe, personal computers, statistical software packages
- Statistical support. Statistician-consultant to advise, interpret, instruct
- Education in research methods: Noncredit, certificate, academic courses

SUMMARY

A research-based body of knowledge is a requisite for professional nursing practice. Nursing studies should be conducted by nurses who have been educated to use a variety of research methods and techniques. Nurse managers can foster professional advancement by leading clinical nurses to identify nursing problems that need investigation, assisting researchers to plan and implement needed studies, and using research findings to improve patient care quality. To help

RESEARCH DRIFT

Research Use by Nurses

Purpose: Determine the physiological benefits of exercise to cardiovascular patients.

Sample: Forty published studies of physiological effects of exercise on cardiovascular patients.

Method: Exercise was defined as any prescribed physical activity engaged in by a patient for a minimum of 20 minutes three times a week that reaches target heart rate. A computer search of Medline database for 1978–86 identified 40 studies of exercise by cardiovascular patients. Of these only six reported patients' myocardial oxygen consumption (MVO_2), a reliable and valid outcome measure. A metaanalysis, or "analysis of analyses," was performed to integrate findings of the six studies. A summary statistic, Effect Size (ES), was computed for each study, and ES statistics from the six studies were averaged to reflect the combined result. The ES was calculated by dividing between-group difference in average scores on the outcome vari-

able by standard deviation. The ES was given a positive sign when results were in the desired direction (physiological improvement) and given a negative sign when the results were in the undesired direction.

Findings: The ESs of the six studies ranged from +3.38 to -0.50. The mean ES was 1.06, indicating that myocardial oxygen consumption was improved in patients who participated in regular exercise sessions.

Application: Because of problems in obtaining and retaining subjects, the sample size of many nursing studies is too small to draw conclusions about efficacy of the tested intervention. Through metaanalysis, results of several small-sample studies can be combined into a single metric, which provides more reliable information on which to base a nursing practice decision.

Source: Missey, J., and Thomas, M. When should nurses use research findings? *Applied Nursing Research* 1:1–2, 40, 1988.

subordinates to conduct and use research, nurse administrators and managers should provide clinical nurses with continuing education in research concepts and methods, a library containing nursing research articles, computer services, research-mentoring, and statistical consultation. To ensure maximum use of these supports by clinicians, managers must provide nurses on-duty time to read and discuss research reports and material and social rewards for research participation.

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Effecting Change

Change is avalanching upon our heads.

ALVIN TOFFLER

OBJECTIVES

After reading this chapter, you should be able to:

1. Describe two current societal changes that are forcing significant change in the function of your health agency
 2. Give an example of one first-level, one second-level, one third level, and one fourth-level change in your health agency and identify one cause and one effect of each.
 3. Describe one action by a manager to facilitate each of the following stages of a change in your nursing department:
 - a. Unfreezing
 - b. Moving
 - c. Refreezing
 4. Outline a four- to five-step strategic plan and a four- to five-step activity plan for a functional change in your nursing organization.
-

As social changes avalanche on American society, health agencies must change both structure and function to remain responsive to public demands and political circumstances (Colloton, 1986).

PRESSURES FOR ORGANIZATIONAL CHANGE

Changes in social mores, such as growing sexual freedom and increasing drug use, produce an increased incidence of certain diseases.

Scientific discoveries, such as chemotherapeutic drug combinations, gene splicing, and laser surgery, improve prognosis for many other diseases. When the community's health care needs change, health agency goals must change in the same direction if the organization is to survive economically. Economic and political changes—inflation, recession, taxpayer revolt—can reduce federal and local support for health care and force agencies to find alterna-

tive, less expensive diagnostic and treatment methods. Federal and state agencies impose stringent cost controls and safety standards on health agencies to ensure worker and patient safety, maximize care quality, and lower costs.

Health agencies receive considerable pressure from clients and potential clients, because the public is becoming better informed about health risks and treatment opportunities. Well educated consumer groups now demand that local health agencies provide combined social and health programs, such as substance abuse treatment programs, psychiatric day hospitals, self care units, abortion clinics, outpatient surgery, family planning programs, sports medicine clinics, weight-control programs, geriatric day care, and exercise programs. In addition, employee unions often demand some of these services as worker fringe benefits. Union contract demands include attempts to upgrade the working environment, to control staffing ratios, and to increase salary and benefits.

Change is accelerating in health agencies, too, because managers receive a rich supply of pertinent, up-to-date management information in computerized form. Typically, the nurse executive receives daily or weekly computerized reports of patient census; patient admissions, transfers, and discharges; financial account summaries; payroll rosters; supply lists; employee absence rates; personnel overtime and registry costs; hours of direct and indirect care per patient per day; number of surgical operations; number of deliveries, and number of patients in key DRG groups, care categories, and acuity categories. Mid-level and first-level managers receive much of the same information in computerized form for the unit or division that they supervise. As managers receive more detailed and more accurate information about agency clients, finances, supplies, equipment, and personnel, administrators expect managers to use the data to anticipate and solve problems, shape policy, and adjust operations to keep the agency on target amid shifting circumstances.

Social and technological changes that occur

inside the agency (widening age gap between managers and workers, racial differences between patients and staff, extension of computerized management systems) provoke a need for system adaptations but also impede appropriate organizational response. For example, professional specialization and division of labor make caregivers so interdependent that a change in the preparation, assignment, or practice of one professional group requires reciprocal change in behavior of interacting groups (Lippitt, 1969). Now that patient care is the responsibility of multidisciplinary teams, workers have become so interdependent that many persons must be consulted before making even a simple change in agency operations. Usually, the nurse manager is expected to serve as change agent for the unit or division that he or she heads. Staff diversification and professionalization provide rich resources for change, but the communication burden of consulting a growing number of specialists constitutes a time trap for the nurse manager.

MEMO CAPSULE

Causes for Organizational Change

- Societal change: Sexual freedom, drug use, employment of females are factors to consider.
- New health care demands: Public wants health promotion and high-tech sick care.
- Research productivity: Scientific findings suggest improved care, treatment methods.
- Professional specialization: Well-educated, highly skilled nurses want job autonomy.

Fortunately, health agencies are open systems, in that they freely exchange information and material with their environments. Agency administrators are responsible for guiding the rate and direction of organization change. Their

goal is to ensure that change proceeds rapidly enough to ensure institutional survival but not so rapidly as to disorient or demoralize workers. To prosper, a health agency must achieve both change and stability. The manager's problem is to negotiate a workable balance between the two.

COPING WITH CHANGE

A key criterion for judging organizational health is the organization's ability to cope effectively with external and internal change (Haimann and Scott, 1974). In a bureaucracy it is difficult to adjust structure to altered circumstances. Thus, bureaucratic structure is less suited to today's rapidly changing society than is a matrix structure.

On the other hand, too-rapid change in a health agency subjects employees to "future shock," a dizzying disorientation caused by premature arrival of the future. This malady provokes "futuritis," or fear of the future, and an inability to plan ahead (Toffler, 1970).

Marchione and English (1982) advocate that managers follow a six-step action process in coping with organizational change:

1. Realizing the existence of a problem
2. Identifying the nature of the problem
3. Designing the focus, parameters, and segments of change effort
4. Implementing a program of change
5. Monitoring and evaluating change processes through information feedback systems
6. Reformulating change processes to refine, augment, and systematize gains achieved through the process

Rantz and Miller (1987) used this six-step change process to implement nursing diagnosis in a Midwest nursing home. Administrators attributed success of the change effort to creation of problem awareness in the first step of the process and use of a multilevel, multidisciplinary steering committee during the implementation and monitoring of the change process.

CONTINUITY-CHANGE CONTINUUM

To understand change processes it is necessary to realize that continuity and change represent two extremes of a continuum. A nurse manager's responsibility is to effect those changes needed to improve patient care quality while preserving enough of the status quo to maintain past accomplishments.

As more nurses undertake graduate study and conduct research, professional nurses continuously update nursing practice criteria. As nurse specialists and researchers implement more demanding standards, caregivers struggle to surpass their previous job knowledge and skill, acquired largely through daily work. The nurse manager's goal should be to encourage needed organizational change while stabilizing the work situation enough that nurses will be comfortable and remain in their jobs long enough to acquire task mastery and job satisfaction.

VARIANCE IN TOLERANCE FOR CHANGE

In planning to implement agency change and coping with spontaneous change, the manager should realize that people differ in their tolerance for change. Persons who highly enjoy novelty welcome changes in life circumstances, are continuously seeking new friends, new surroundings, and new activities. Persons who little enjoy novelty prefer stable conditions, remain content with the same spouse, same house, same job, same friends, and same interests for years on end. Most persons, even those who enjoy novelty, are discomfited by the change process, which generates anxiety by moving the person from the comfortable familiarity of the status quo to the painful uncertainty of an unknown future.

Personal preferences notwithstanding, the pace of personal and work life is accelerating. Nursing managers cannot avoid change and should minimize their level of frustration by accepting change with equanimity, even seeking it out as enjoyable and professionally advantageous. Studies show that nurses will stay in de-

manding and difficult jobs. If work outcomes and working conditions augment their self-esteem and self-actualization. Some change in personal goals and work challenge is required for an employee to achieve growth and self-actualization. When personal growth and pride are impossible, nurses report frustration, dissatisfaction, and intent to resign, all associated with high staff turnover.

Previously, management of change was a corrective action undertaken by a manager to remedy unforeseen outcomes of ongoing operations. In the future, nursing leaders should change from an adaptive, reactive, or coping approach to a more proactive role, in which health care demands and resources are anticipated and agency structure and function are adjusted to future demands.

Some managers resist changing work habits and patterns that have been developed and refined over the years out of misdirected loyalty to predecessors, mentors, or coworkers. A single nurse manager who resists alteration of work methods and materials can hamper the total agency's organization development program. The goal for each manager should be to build a human organization that is willing and able to change, anticipates problems, maximizes opportunities, prioritizes goals, and embraces innovation as a way of life.

DEFINITIONS OF CHANGE

The word change is both a noun and a verb. The noun change refers to an alteration. The verb change refers to the process that brings about an alteration. Change in the sense of altered future state should be defined as a significant departure from the status quo to differentiate a major alteration from those minor shifts of circumstance that occur through time but have little lasting effect; change as process should be seen as means of transition to a different end. Change is also the process of moving from one system to another. This latter definition forces the change agent to contrast input, throughput, output, and feedback loops of both

the present system and the new system that is to replace it. Learning produces change in behavior, and employees' learning provokes agency change, because subsystem alteration causes change in the larger parent system.

TYPES OF CHANGE

Change may be accidental or planned. Accidental, or reactive, change is an adaptive response to an outside stimulus that is directed toward reestablishing balance between system and environment. Planned change results from deliberate, collaborative effort to improve system operation and facilitate acceptance of the improvement by involved parties.

Change can be differentiated into first, second-, third-, and fourth-level change. First-level change is an alteration in the change target's knowledge. A vice-president of nursing polled staff members to determine their level of job satisfaction and was surprised when questionnaire responses revealed low employee morale resulting from autocratic nursing management at all levels of the agency's hierarchy. This discovery of the extent and cause for employee dissatisfaction constituted a first-level change.

A second-level change is an alteration in the attitudes of a change target. In the preceding example, if questionnaire responses caused the vice-president to recognize that her or his own autocratic style was responsible for the autocratic behavior of middle- and lower-level nurse managers, the vice-president's feeling of responsibility for low employee morale would be a second-level change.

A third-level change is a behavioral alteration by a change target. After recognizing the systemwide effects of her or his own autocratic style, the vice-president's change to democratic leadership style would represent a third-level change.

A fourth-level change is a complex alteration of forces affecting an entire social system. When a vice-president of nursing's change from autocratic to democratic leadership style moves middle managers toward greater acceptance of

staff nurses' suggestions and the greater respect given staff nurses increases their job satisfaction and productivity, the systemwide alteration is a fourth-level change.

MEMO CAPSULE

Change Levels

- First level: Alteration in worker's work-related knowledge (thinking)
- Second level: Alteration in worker's job-related attitudes (feeling)
- Third level: Alteration in worker's job-related behavior (acting)
- Fourth level: Alteration of forces throughout a social system (interacting)

Organizational changes can be categorized with reference to the *object* of change effort: individual task behaviors, organizational process, strategic direction, or organizational culture (Connor and Lake, 1988). These are common objects for change efforts, because they are capable of improving agency productivity, reputation, and profit.

During the early part of this century, most changes in employee task behaviors were directed toward fractionation and simplification. Most current efforts to change task behaviors are focused on increasing skill variety, decision autonomy, feedback, and lateral communication. The processes at which change efforts are often aimed are decision processes, regulatory controls, performance appraisal, and employee rewards. In the early part of this century, "scientific management" was implemented in the hope of ensuring the best possible management decisions. Since mid-century, change efforts have been aimed at teaching managers to "satisfice" decisions, to seek not the *best* decision but one good enough to meet minimal criteria. Managers are encouraged to make these decisions through participation with peers and subordinates.

Change efforts aimed at controlling operations often consist of revising agency objectives, establishing performance standards, and activating a monitoring system to identify substandard performance. In the past, agency administrators set production standards and criteria for subordinates. Increasingly, members of the primary work group are expected to develop process and outcome standards for their work, monitor critical indicators, and evaluate and improve work quality.

Change efforts are often focused on the employee-performance appraisal process. Historically, changes in employee evaluations were aimed at identifying the most significant tasks subsumed by each job title, the most effective way to perform each task, and the most effective way to evaluate each task behavior. Today, changes in performance appraisal emphasize the individual employee's responsibility for goal setting and performance appraisal (as in MBO) and the primary work group's responsibility for goal setting and quality monitoring.

Efforts to change the employee-reward process include attempts to improve salary scales, institute profit sharing, and provide such social recognition as award dinners, service pins, and prizes for special merit. Recent changes in reward systems include attempts to celebrate the accomplishments of individuals and to recognize the excellence of a unit's or division's total work group.

Efforts to change an agency's strategic direction might be focused on agency products or services, agency clients or customers, or both. A health agency in a changing neighborhood may find it necessary to decrease or increase the number of inpatient beds, outpatient clinics, and such peripheral services as parking garages, food service, pharmacy sales, health equipment rental, and physician's office space. Changing population demographics may cause a health agency to decrease services for which demand is shrinking (birthing facilities or well-baby clinics in an area with few young marrieds) and introduce new services to meet urgent com-

munity needs (substance abuse clinic or trauma unit in an inner-city neighborhood).

When strong organization norms prevent managers and employees from adapting to changing service demand, efforts should be directed toward changing the organization's culture. Sometimes culture change is achieved by infusing new personnel who possess the desired beliefs and attitudes into the existing work group in order to "seed" new ideas throughout the work force. Alternatively, an internal-external change agent pair can be appointed to lead managers and workers in analyzing the agency's internal and external environment, identifying threats and opportunities, and designing a systemwide renewal process.

STAGES OF CHANGE

Any planned change proceeds through three stages: (1) unfreezing forces that preserve the status quo; (2) implementing the change process (series of events) by which the present system is converted to a different system; and (3) refreezing forces that will stabilize the new system by integrating it with ongoing agency routines (Schein, 1969).

Unfreezing or weakening the bonds that support the present system is a matter of raising consciousness to make change target(s) un-

happy with the status quo, so they will desire a different future state. Under satisfactory life circumstances, a person is relatively unconcerned about the future. When life circumstances are painful and future prospects unpleasant, a person is acutely concerned with future welfare (McGovern and Rogers, 1986) and willing to seek change.

Lewin (1953) claims that any present state is a dynamic equilibrium of simultaneous driving and restraining forces. To unfreeze the status quo, a change agent must increase driving forces or decrease restraining forces in the situation (Fig. 25-1). In one nursing organization, older supervisors and head nurses preferred to retain the practice of team nursing, while the divisional director, younger managers, and staff nurses wanted to institute primary or modular nursing. After months of discussion, mid-level managers were hopelessly deadlocked over the issue. Therefore, the divisional director systematically replaced each retiring "old guard" supervisor with a younger, more innovative clinical specialist, until a preponderance of progressive managers produced a majority of votes for primary nursing.

In this example, if the restraining force had been a stodgy, tradition-bound divisional director, and the vice-president of nursing had

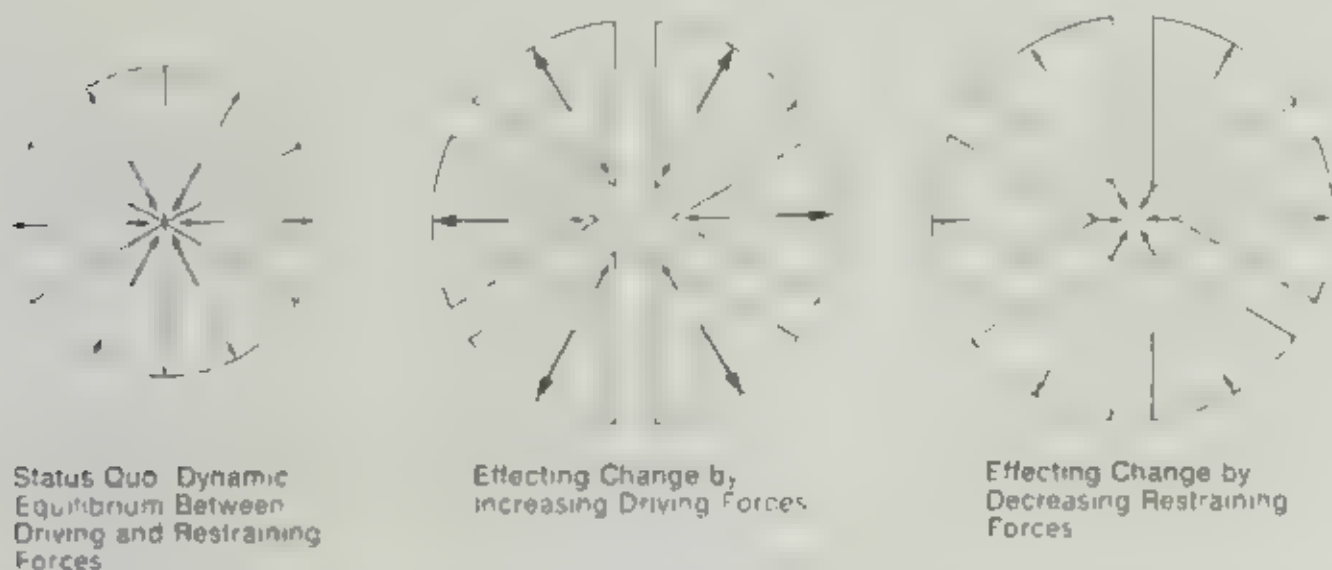


Figure 25-1 Unfreezing the status quo.

wanted to increase support for primary nursing by decreasing restraining forces, she or he might have transferred the resistive division director from the line position to a staff position without command authority.

It is easier for a manager to unfreeze the status quo when there are many disrupting elements in the situation than when events are progressing smoothly. However, employees will relinquish attachment to the status quo only if it seems possible to change the situation and the envisioned change is likely to improve their work life. Often, a combination of internal and external forces is needed to break the bonds that secure the present system. Outside forces, such as government bodies, accrediting agencies, and unions, can create employee dissatisfaction with present operations. Inside forces, such as authoritative statements by top executives and propaganda campaigns by factional leaders, can decrease employee commitment to present programs and methods.

Forces that drive a change process, once started, may be internal or external to the system. External driving forces are economic, social, or political forces in the environment. Loss of tax revenues may force a county hospital to continue the phaseout of operations that began during a nurses' strike. A law that raises the income level at which a person qualifies for welfare support might be another external driving force behind a phaseout of agency services. Internal driving forces may be process or people related. Process-related internal driving forces include feedback control data, such as budget information and quality-monitoring reports; program-planning techniques, such as critical path analysis; and organization restructuring, such as creation of project teams.

People-related internal driving forces include provision of monetary rewards to change targets, allowing employees to plan the change process, and fostering employee trust in the change agent. One method for increasing internal, people-related driving forces is to create cognitive dissonance in employees, that is, lack of agree-

ment between a worker's beliefs and actions. Some nurses believe that patient care quality is improved when the same nurse cares for a patient throughout his or her entire hospitalization, planning, coordinating, and evaluating administration from all caregivers. A nurse who espouses this belief but cannot provide continuous and comprehensive care to patients because she or he is moved daily from one functional assignment to another would be motivated to change from functional to primary method of assignment, because the latter method would enable the nurse to act in accord with basic beliefs.

Even when change is externally imposed, cognitive dissonance is an effective internal change force. A nurse who opposes a change from handwritten to computerized patient records will become less resistive if forced to use the computerized system for a week or two. In order to decrease cognitive dissonance, the nurse must bring personal beliefs and behavior into agreement. If forced to change behavior, an individual will gradually alter her or his attitudes to make them as compatible as possible with overt behavior.

After agency change has been wrought, the new state of reality must be retrofrozen; that is, the new method, technique, procedure, or process must be integrated into familiar events until it becomes routinized. To integrate a new subsystem with an older suprasystem, structure of contiguous subsystems must often be adjusted to make the new subsystem fully functional.

Refreezing a newly implemented change is hastened when employees are rewarded promptly and consistently for displaying desired behavior. Additional pay, improved work hours, or more interesting assignments may be needed to freeze difficult agency changes. Managers can hasten refreezing by gathering evidence to demonstrate how the change is advantageous to patients and workers and feeding this information to change participants.

A change agent can facilitate refreezing by

giving change targets an opportunity to practice desired new behavior repeatedly, in the company of a supportive supervisor who provides helpful coaching until the desired behavior becomes automatic.

The purpose of planned change is to create a stable future state that is more desirable than the present state. Often, a manager's motivation for change is a need to impose order on a problem-ridden situation.

MEMO CAPSULE

Facilitating Organizational Change

- Implement democratic leadership.
- Use participative management.
- Follow a matrix organization structure.
- Ensure work time for creative endeavors.
- Support interprofessional, interagency cooperation.
- Finance continuing education, academic courses for staff.
- Applaud employees for problem-solving efforts, whether successful or not.

EFFECTS OF CHANGE

Planned change produces far-reaching change in a health agency. Any system change initiated by a nurse manager is likely to produce unforeseen and potentially undesirable side effects *in addition* to the expected outcome. Furthermore, organizational change has a ripple effect, so that even small change in one unit or system can have significant effects throughout the agency. Because a small organizational change upsets individuals and groups throughout the entire organization, the manager is ethically obligated to invite change targets to express observations and opinions throughout the planning, implementation and evaluation stages of change.

Rapid change in a health agency may afflict

nurse managers with "complexity shock," a sense of helplessness and anxiety resulting from confrontation with frequent and unpredictable change in the face of inadequate coping skills (Manez, 1978). Planned change also subjects change agent and change target(s) to a variety of risks. Risks associated with organizational change include making mistakes; losing face; excessive personnel costs; physical exhaustion; lowered morale; and increased employee turnover.

The effect of organization change on each employee depends on the individual's values, position in the work group, and psychological dependence on peers. Research shows that a self-sufficient person who isolates herself or himself from peers because of a need for autonomy will generate innovations if the work climate favors independent action. Such a self-sufficient, autonomous, progressive isolate would be threatened if the majority of employees were to support her or his innovations. In fact, the isolate may resign if her or his innovations are too rapidly adopted by the total work force. When a peripherally placed employee shares the progressive inclination of the total work force and isolates herself or himself to seek greater autonomy, the isolate is apt to ignore progressive changes invented by the dominant group. When progressive change is initiated, a peripheral worker of conservative bent with strong autonomy needs will withdraw further and resist change actively or passively. A peripheral employee with conservative leanings and high inclusion needs will be threatened by progressive change in the work situation and may become hostile or depressed (O'Brien et al, 1972).

Organizational change is inevitable, though potentially painful. Therefore, the nurse manager should control the change process so that alterations occur at the right time, at the right speed, in the right direction, and as smoothly as possible, to achieve the desired results with minimal disruption of workers' lives and sensitivities.

ESTABLISHING A CLIMATE SUPPORTIVE OF CHANGE

Many driving forces for agency change are included in the concept of organizational "climate." A change-oriented nurse manager will strive to make experimentation with method, materiel, and personnel a behavioral norm in the unit or division; will assign and coach subordinates to develop their abilities for self-direction; will use leadership techniques that encourage mutual trust between superior and subordinate; will employ communication techniques that encourage the free flow of information up, down, and laterally through agency structure; and will encourage decision making at all hierarchical levels (Beyers, 1984). The manager should reward subordinates for innovating even when their innovations fail to achieve the intended results. A manager can encourage employees to think creatively by rewarding independent action and by cross-disciplinary problem solving (Schermerhorn, 1984). Employees are stimulated toward creativity by a well-engineered work system in which goals are behaviorally defined and quantifiable, each subsystem supports goals of the suprasystem, and timely feedback enables employees—as well as managers—to monitor system performance. If well-educated, well-coordinated, highly motivated nurses are constrained by poorly conceived and ineffective work systems, they soon become demoralized and resign.

A change-oriented manager will design employee assignments so that professionals have time to analyze practice problems and invent creative solutions (Drucker, 1985). Harried, overburdened workers cannot resolve problems creatively, because "routine work drives out nonroutine work" (Bennis, 1976; Hayes, 1985).

When organizational climate defeats a nurse manager's initial efforts to improve nursing standards and practice outcomes, a program for organizational self-renewal may be needed to imbue employees with enthusiasm for the burdens and risks of change. In preparing staff

members for organizational self-renewal, the change agent should analyze the nursing department's total functioning to identify system inputs, throughputs, and feedback techniques that must be altered to enliven employees' will and imagination (Tichy and Beckhard, 1978).

When major input to nursing plans and policies comes from top administrators, it may be necessary for change-oriented managers to actively solicit staff nurses' opinions about the proper future direction of nursing programs and services. If a nursing department's work processes and authority structure foster development of isolated specialists, instead of interdependent professionals, managers should institute teambuilding and networking activities, to bond employees together before subjecting them to an organizational development program. If staff nurses do not see their work output as critically important to nursing department goals, they should be given greater responsibility for monitoring care quality, evaluating peer performance, conducting nursing research, and publishing reports of practice innovations.

Schein (1985) claims that change does not occur spontaneously in social systems (such as a nursing department) but is always instigated by someone inside or outside the system. However, planned change in a social system may not proceed in the manner intended by the instigator, because sociodynamic events are so complex that change agents can easily miscalculate the effects of specific change efforts.

Organizational change can be viewed as a therapeutic process that is aimed at improving work force adaptability and takes place within the work force through employees' interaction with selected outsiders. Using a therapeutic approach to change, an administrator would invite managers as a group to hypothesize the effect of managers' interactive role behaviors in causing selected system problems. The goal of these discussions would not be to locate individual responsibility for problem elements but for each manager to understand and redefine his or her role in total system operations. Personal role

redefinition would stimulate each manager to monitor and adjust her or his behavior to total system needs.

HANDLING RESISTANCE TO CHANGE

Forces that oppose change are labeled resistance. Resistance to change may be overt or covert and may originate with an individual or group (Ward and Moran, 1984). An enterprising nurse manager is apt to encounter resistance to proposed changes, because rapid growth in the health industry has produced numerous, highly specialized, interdependent groups of health care professionals whose roles and status are apt to be disturbed by changes in nursing practice.

Resistance to change is natural, because any change, even one that is beneficial, requires psychological adjustment by the change target and may threaten the target's work role, job security, economic welfare, self-esteem, or social support. A sensitive manager could predict the resistance to result from a change effort by investigating which employees' personal, professional, or economic welfare would suffer under the intended change.

An employee's resistance to change is proportional to her or his emotional investment in the status quo. If an employee was initially attracted to the agency because organizational structure or climate satisfied deep needs for freedom, control, or sociability, the employee is likely to block changes in those elements that have strong personal significance.

There is also resistance to change when the goal of proposed change runs counter to current trends, as an effort to convert from team to functional nursing when primary nursing is in vogue. Resistance is strong when departmental systems have been stable for a long time and personnel are satisfied with the situation. Some resistance to change results from misunderstanding the change process. This type of resistance can be prevented by giving change targets detailed information about the cause, purpose, method, design, and schedule

for the process well in advance of any system alteration.

The psychological basis for resistance is the fact that change threatens a person's security and esteem needs (New and Couillard, 1982). When management institutes change, employees conclude that agency operations have been inadequate. Employees whose work is a primary source of ego gratification are threatened by the notion that managers have found their work output inadequate.

Finally, the change agent's personality or behavior may provoke employees' resistance to a change. A change agent who is unable to inspire respect or trust meets with greater resistance than a more personable or inspiring leader. A manager or change agent who ignores employees' work habits and social interests when designing the change process provokes resistance from some workers who might otherwise welcome the intended change. The change agent who uses poor timing—initiating major change during a period of excessive work pressure—will encounter resistance because fatigue diminishes enthusiasm. A change agent who lacks skill in exposition, analysis, and persuasion will encounter resistance because change targets will not understand what behavior is expected of them.

Some resistance to change originates from the agency's political power structure. Each power position in an agency is maintained by the incumbent's control of status and resources. A major change upsets the agency's carefully negotiated power structure, and those likely to lose power through the change will oppose it, whether or not the change goal is desirable.

Much resistance is directed toward a change agent from employee cliques rather than individuals. Syntality, the sense of togetherness experienced by clique members, causes them to adopt common beliefs and values, to which they adhere staunchly, even in the face of contradictory evidence. The clique pressures members to conform to group norms through provision of immediate rewards and punishment (rewards

MEMO CAPSULE

Causes for Resistance to Change

- Change requires exhausting psychological adjustment.
- A present certainty is more comfortable than a future uncertainty.
- The employee's identity and security are tied to present circumstances.
- Departure from present practice earns the disfavor of professional colleagues.
- A request for change is seen as criticism of workers' past performance.
- Organizational change upsets the agency's formal and informal power systems.

and punishments from agency administrators are less swift and less reliable).

In any innovation effort, some workers will oppose the change. Some verbalize their hostility openly. Experienced managers know that the most vocal adversaries constitute less formidable resistance than silent sulkers, who refuse to discuss their objections, or smiling saboteurs, who feign acceptance but have no intention of modifying their behavior. The amount of resistance that a manager encounters in instituting organizational change is proportional to the scope and depth of the attempted change. Efforts to replace agency goals, to effect sweeping change in *all* agency programs will generate more resistance than proposed change in a single procedure or function.

Most theorists claim that all persons resist change. However, Lippitt (1969) claims that employees do not resist change so much as the methods by which managers attempt to produce change. If resistance is inevitable, the amount of employee resistance to a particular change can be decreased by starting the change process with top executives, emphasizing novel and exciting aspects of the change, providing information in advance to affected employees, designing the change to preserve useful habits and

customs, involving employees in planning and implementation, helping change targets to adjust to a new system, providing feedback that enables managers to halt the change process if trouble develops, and protecting employees from loss of autonomy.

STRATEGIES FOR CHANGE

There are four types of organizational change strategies: facilitative, informational, attitudinal, and political. According to Connor and Lake (1988), the criteria for determining which type of change strategy to use are: amount of time available, extent of proposed change, favorableness of change targets, and ability of change agent.

Facilitative strategies are those that help the change target to make the proposed change. Facilitative strategies are effective when target group members know that a change is needed, know what they want to do to effect change, but lack some of the means needed for the change effort.

Informational strategies consist of providing knowledge, facts, and opinion. They are effective when members of the target group are unaware that a change is needed and require extensive amounts of information to make the desired change.

Attitudinal strategies consist of altering the attitudes of target group members that restrain them from making the desired change. They are useful when the proposed change is extensive in scope and depth, when an extended time is available for accomplishing the change, and when members of the target group are ignorant of the need for change or uncommitted to making a change.

Connor and Lake (1988) define a political activity as "determining who gets how much of what, when." A power-type political strategy is appropriate when change must be accomplished in a limited time, the target group is ill-disposed to the proposed change, and the change agent controls the resources necessary for the change action. A more complex political negotiating

process is appropriate when there is minimal time pressure, the proposed change is extensive, and the desired change in conditions must be maintained over a long period. According to these experts, the success of any organizational change effort depends on selecting the change strategy that best fits organizational circumstances and criteria for change success.

Considerable courage is needed to act as change agent for a modern health agency. An internal leader who becomes a change agent for an unpopular system change may be rejected, together with the proposed change, by disgruntled employees (Webber et al., 1985). To bring about the desired change with minimal risk to self and others, a nurse manager should select a strategy to guide change actions. A change strategy is needed, because the change process is fragile and can be easily thwarted. The objective of any change strategy is to minimize resistance and maximize commitment to the envisioned change.

One strategy is to work through line personnel to change the organizational structure or technology. Installing a computerized staffing program is an example of technological change. A structural change is characterized by change in the table of organization and alteration of task-authority relationships among employees. A structural change frequently includes changes in job descriptions, change in the basis for departmentalization, and change in line-staff relationships.

Another change strategy is to work through a staff officer or outside consultant to alter employee attitudes and behavior by means of a therapeutic approach. Research reveals that structural change is more effective in changing behavior at lower levels of the organization's hierarchy and therapeutic approach is more successful in changing behavior at higher levels of the organization's hierarchy (Hippo, 1978).

Selecting a change strategy hinges on the amount of authority to be retained by the change agent and amount of authority to be given to change target(s). When strategy calls

for unilateral authority, change is effected by the top executive's issuance of a change edict. The inference underlying the unilateral authority strategy is that top executives know what is best for an organization. When strategy calls for delegated authority, the executive relinquishes control of the change process, delegating authority to a subordinate group to make whatever change they deem necessary. When full authority for change is delegated, employees conclude that the top executive has little interest in the change process or its outcomes and that any type of alteration will be accepted. A strategy that lies between these extremes is that of shared authority, in which the change agent directs, motivates, and coordinates subordinates' efforts to define the problem and select a satisfactory solution. Of these strategies, a shared authority model is most effective, because it motivates employees to perpetuate change, once initiated.

Another strategy consists of taking a systems approach to change. This model is similar to the shared authority model, because it views the change process from the standpoint of inputs (worker knowledge, skills, attitudes), throughput (change process as flow chart), feedback loops (reports, observations, discussions with workers), and outputs (service and production changes). A systems strategy for organizational change is useful, because the subsystems of a modern health agency are highly interdependent. Changed methods for recruiting, hiring, scheduling, assigning, organizing, utilizing, supervising, evaluating, or rewarding in a single nursing unit will influence nurses' behavior throughout the agency because of the diffusion of information and opinion.

Gordon Lippitt's cyclical, or "loop," strategy for organizational renewal (1969) is based on a systems concept. Lippitt claimed that organizational growth and development are outcomes of the manner in which situations are confronted and dealt with by executives, managers, and staff. According to this view, organizational change occurs in evolutionary fashion, as managers learn new skills from coping

with external pressures, internal problems, and unforeseen crises. To survive and flourish, a health agency must be flexible enough to modify structure or function when environmental shifts require a change in agency goals and methods.

Another strategy for change is the authoritative approach. Sometimes pressure for change is exerted on the top executive by forces outside the agency. An executive with clout can demand the prescribed change and force employees to implement it through close supervision and judicious use of punishment and reward. This strategy may force changes in employee behavior, but maintaining the change through time requires the executive and all managers to provide continuing close supervision. Furthermore, employees' morale declines because of the loss of autonomy and because of their exclusion from the planning process. Lippitt claims that an authoritative approach to change is best when time does not permit a more therapeutic, persuasive, or participative approach. When a power broker introduces abrupt and irreversible change, imposes painful sanctions against those who resist it, and communicates clear expectations for workers' behavior modifications, there will be a rapid behavior change in the desired direction, without corresponding attitudinal change. However, with the passage of time, workers' attitudes toward the change became increasingly positive.

The authoritative approach is often used to implement nursing changes, perhaps because there are few change agents among staff nurses and ancillary personnel. Experts claim that working in health bureaucracies encourages nurses to become dependent in thought and action and that graduates of hospital-based nursing education programs are unwilling to "rock the boat" to update nursing methods, even when proposed changes are likely to improve patient care quality and nurses' job satisfaction. When nurses identify episodes of poor-quality nursing outcomes, diagnose causes for unsafe or ineffective care, and design methods to eliminate problems, they are inclined to report their ob-

servations and conclusions to a physician or health agency administrator, instead of implementing the needed improvements on their own.

Another change strategy is the persuasive mode, in which the change agent "sells" the proposed change to employees by emphasizing that the new method will be easier, or will take less time than the old one. The change agent asks employees to "try out" the new method on an experimental basis and to report the favorable and unfavorable consequences of its use. If employees report dissatisfaction after trial use of the new method, the change agent persuades them that the problems are relatively insignificant, suggests minor modifications, and persuades employees to "try out" the revised method for another experimental period.

Yet another change strategy is to begin the change process by converting the most receptive followers first, and then focusing attention on employees who offer only minimal resistance. Hard-line holdouts are not tackled until a core of committed employees is available to win over more stubborn coworkers.

The "camel's head in the tent" strategy is useful in instituting a change so lengthy and complex that it confuses employees. Here, the objective is to develop a flow chart of the change process with an accompanying timeline but to explain only a segment of the total plan to workers. When that segment is understood, accepted, and implemented, the change agent explains the next step in the process, and so on.

Lewin's change strategy, which is often followed, is a three-stage approach in which the forces that maintain the status quo are unfrozen, shaping forces are applied to encourage employee behavior that will move the situation from present state to desired future state, and sanctions are applied to refreeze the system at the new level of performance (Fig. 25-2).

Another strategy for effecting agency change is redistribution of power within the organization. This can be done by identifying new power sources in the system and strengthening innovative new leadership, while decreasing the

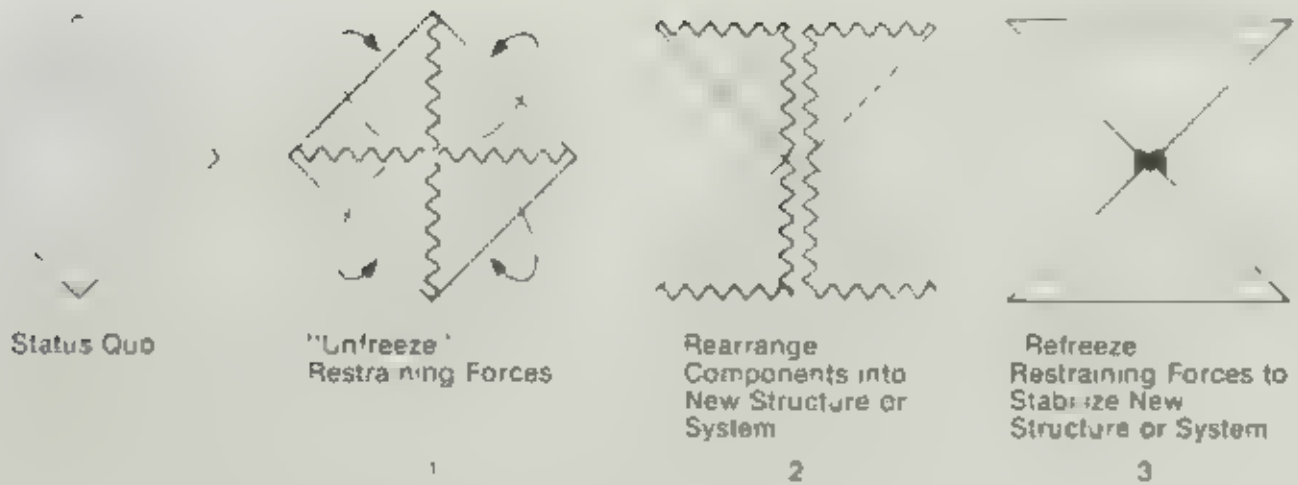


Figure 25-2 Stages of planned change.

power of older, tradition-bound leaders. For example, to improve patient care quality and nursing research, a vice-president of nursing might replace the authoritative power of a nursing supervisor with the expert power of a clinical specialist. To support this strategy, nurse administrators may have to change the organization's structure to legitimize the authority of an informal, factional leader. Therefore, the change agent should have line authority and enough expert power to persuade top executives to make needed changes in the table of organization.

The strategy of changing power distribution includes increasing the power of line workers. For example, to energize first-level employees for higher productivity, a manager should teach staff nurses and ancillary personnel new psychomotor skills, counsel them to enhance self-image, and reward them for taking calculated risks.

Another strategy for effecting agency change is the stream analysis process (Cashman, 1989). This technique is based on the assumption that the several occurrences that give rise to a problem, similar to the several activities required in a change process, can be conceptualized as a stream of events flowing through time. To use the stream analysis process to change an agency system or process, a manager should list, in sequence, the perceived series of events that led

to the problem under consideration. Then the manager should list, in sequence, the series of events that occur in normal agency (or unit) operations. Then, the manager and staff members should look for interconnections between these two event streams, to identify points at which change must occur to remedy the problem. When modifications have been made at interconnections between the problem develop-

MEMO CAPSULE

Change Methods

- Political negotiation: Requires time and diplomacy
- Internal change agent: Informal leader creates dissatisfaction with status quo.
- External change agent: Expert from afar re-distributes power in the organization.
- Internal-external change agent pair: Combine external expertise and internal know-how.
- Authoritative pronouncement: Executive uses position power to force change.
- Persuasive exhortation: Charismatic leader advocates change direction and method.
- Convert enthusiastic disciples, then docile followers, then resistant opponents.
- Stream analysis: Identify links between normal operations and problem causes.

ment and unit operations streams, the resulting stream of (different) events will constitute a flow chart from which to plan the change process.

Hafler (1986) claims there are three overall change strategies. The empirical-rational strategy is based on the assumption that people are rational and, as such, will make a recommended change if the reason for the change is rationally presented and they perceive personal benefit from changed circumstances. The power-coercive strategy is based on the assumption that people with less power will comply with directions for change issued by someone with more power than them. The normative-reeducative strategy is based on the assumption that people will change their behavior and beliefs more readily when actively engaged in identifying and analyzing the underlying problem, choosing the desired solution, and planning the change process.

All these change strategies begin with a careful formulation of goals for change. One expert advocates a different approach. Hayes (1985) claims that the traditional ends-ways-means (goals-strategies-resources) model for change is ineffectual under present conditions of resource scarcity and rapidly changing demand. Hayes recommends that administrators use a means-ways-ends model for change. With this approach, administrators would start a change process by identifying agency resources (means), would then invest these resources broadly (train each worker in a variety of jobs, experiment with new technology). Then, administrators would exploit matches between employees' heightened capabilities and valuable new technologies to develop plans for new product and service lines (ways). Finally, administrators would investigate market opportunities to determine the number of clients of various types to whom the agency will provide the new services during a prescribed period (ends). According to Hayes, a matrix organization structure would be needed for this means-ways-ends change strategy.

TWO TYPES OF PLANS FOR CHANGE

The nurse manager's strategy for organizational change should be written and consists of two parts: (1) an activity, or performance, plan and; (2) a strategic, or logistical, plan.

The Activity Plan

The activity plan is a descriptive outline of the future reality expected from the change process. For example, if a vice-president of nursing desires to change the nursing department from a decentralized to centralized staffing system, the activity plan should include a step-by-step description of the change process, with accompanying flow charts and policies to be used when deploying nursing personnel from a central staffing office to each nursing unit in response to changing demands for patient care. If the vice-president foresees that head nurses and divisional directors will perceive a centralized staffing system as eroding their professional autonomy, she or he should develop a logistical plan to ensure nurse managers' and staff nurses' acceptance of the proposed system. The logistical plan would describe centralized staffing in favorable terms ("saves time," "spreads risk of shortages"), provide rewards for managers who espouse the proposed system, decrease attractiveness of decentralized staffing (demonstrate inconsistency in staffing by different head nurses or charge nurses), and discredit the plan's opponents.

The activity plan for agency change should be designed as a systems diagram to show the relationships between the proposed subsystem and other subsystems in the larger suprasystem. Centralizing the staffing function would require changes in the nursing budget, table of organization, employee time schedules, employee sickness or absence reports, and orientation for mid-level managers.

Not only should the activity plan outline the steps to be implemented throughout the change process, but also it should include a budget for start-up and maintenance costs of the new sub-

system, target dates for starting and completing the change, methods for changing employee attitudes and behaviors, schedule for pilot-testing the system in a few nursing units, and criteria for judging outcomes of the change. Ideally, the change agent and change targets should negotiate a written agreement in which they agree on change goals, characteristics of the desired future reality, target dates for the change process, and persons responsible for each process component.

The activity plan should be written in enough detail that the change agent is forced to consider the amount of time, space, and personnel needed to achieve change goals. The activity plan should provide structural reinforcement for changes in employee behavior and specify dates for reaching checkpoints scattered along the activity flow diagram. For example, a nurse administrator of a skilled nursing facility used change theory to help staff members to implement nursing diagnosis as the basis for patient care planning. When the total change process became too complex and burdensome to be managed by the nurse administrator (change agent), she appointed a steering committee consisting of 10 staff nurses to support the staff in further implementation and to counsel caregivers about problems encountered in using specific diagnoses (Rantz and Miller, 1987).

The Strategic Plan

The strategic, or logistical, plan is needed to remove barriers to activity plan implementation (Terry and Franklin, 1982; Welch, 1982). Structural barriers can be eliminated by changing the formal table of organization. However, most barriers are psychological and respond therefore to counseling, teaching, and group support.

The first step in the strategic plan is to decide whether it is desirable to attempt to change in the first place. The second step is to decide who will be affected by the change and whether the time is suitable for change.

MEMO CAPSULE

Type of Change Plans

- **Activity.** Outline the series of activities necessary to achieve desired change, determine proper sequence of events, decide on person(s) to perform each event
- **Strategic.** Forecast situation character under desired change, identify persons to be affected, decide whether time is right for change

Donnelly et al. (1971) developed a model for selecting a change strategy and designing activity and logistical plans for the change process. Donnelly's model describes change as consisting of eight subsystems:

1. Forces for change
2. Recognition of need for change
3. Diagnosis of underlying problem
4. Identification of possible change techniques
5. Recognition of limiting conditions
6. Selection of change technique
7. Implementation of change
8. Monitoring process and result

In any change process, feedback loops should be provided between subsystems to keep the process on target. Information about an agency problem may indicate a need for change, the type of change required, and the additional information needed to design an effective remedy. Limiting conditions may cause a change agent to abandon the preferred change technique for another, more difficult, technique that is better suited to situation characteristics.

TACTICS FOR CHANGE

Each strategic change plan includes several tactics, which are actions of small magnitude and length that maneuver the change process in

the intended direction. Each change tactic is applicable to more than one strategic plan.

A common tactic in many strategies is for the change agent to raise questions and create unrest among employees in order to generate differences of opinion and arguments that will loosen forces that maintain the status quo.

Another tactic is for the change agent to discover a discrepancy between the true nature of the situation and employees' perceptions of the situation. The degree of disparity between the two will reveal communication problems, biased opinions, denial, wishful thinking, and lack of intersystem feedback that should be corrected by the change process.

A useful tactic for initiating complex agency change is to slowly introduce major ideas, such as changes in organization goals, in informal, one-to-one contacts with employees during lunch and coffee breaks. By using a personalized approach with informal or factional leaders, the change agent can learn what type of opposition to expect and adjust the activity and strategic plans accordingly.

A tactical ploy used by astute change agents is to link goals for the proposed change to personal goals of key employees. If an agency's staff nurses want to increase their physical assessment skills, a vice-president of nursing who wants to move the department from team to primary nursing should emphasize that the proposed system will upgrade nurses' skills in *all* aspects of the nursing process: physical and psychological assessment; nursing diagnoses; writing care objectives; constructing care plans; implementing individualized care; and evaluating care outcomes.

Another motivational tactic is to start the change process with employees most receptive to the change, wherever they are located in the organizational hierarchy. Ideally, a change agent should obtain the support of top executives before implementing any change with agencywide implications. However, if top executives initially resist the proposed change, the change agent should invest major effort in win-

ning over key subordinates. If conversion of the rank and file does not convince agency executives, the change agent might persuade community leaders or professional organizations to urge the agency's executives to implement the needed change.

A tactic for ensuring that the change agent is both objective and knowledgeable is to use an outsider-insider change-agent pair. When this tactic is used, the outsider—a person skilled in group dynamics, communication, and social engineering—provides direction and encouragement for change leadership by an internal expert who enjoys status and acceptance from the agency's formal and informal organization structures.

Within the first few days of involvement with the client system, an external change agent should provide some service or take some action that is seen as helpful by the agency's employees. After thus proving her or his usefulness to the group, the change agent should help employees to take some action that produces an immediate improvement in the work situation. It is important for change targets to experience success early in a change process, because positive reinforcement of early efforts will perpetuate change-oriented behavior and increase energy for later stages of the process.

Although early success is needed to maintain employee motivation for change, the change agent should facilitate realistic expectations of the change process and the future state of reality. Regardless of the agency problems that change targets have identified, analysis by an objective outsider will usually reveal more complex problems than those diagnosed by employees. However, severe system dysfunction would call for sweeping agency changes, which may not be feasible. Therefore, the change agent should prevent change targets from expecting immediate and complete relief of all problem manifestations.

When employees present strong resistance to change goals or details of the change process, the change agent should analyze the present sit-

uation, proposed future reality, and steps of the change process from the employees' point of view. By identifying reasons for an employee's opposition and empathizing with his or her concerns, the change agent may win over a powerful adversary or learn how to bypass him or her in the change process.

There is tactical advantage in using an assertive approach when presenting a change proposal to targets. The change agent should inform employees in clear and simple language exactly what change is intended and how it is to be made. However, a change agent can scuttle the change process by adopting a too aggressive manner toward opponents of change, who might then be seen as martyrs by their less vocal coworkers. It is unwise to confront adversaries impulsively early in the campaign for change. If opposers cannot be won over through repeated appeals to logic, the change agent should approach them obliquely, after having marshalled other forces in support of the change. If it becomes necessary to confront resisters openly, the change agent can decrease self-doubt and anxiety by mentally rehearsing probable arguments from opponents and practicing delivery of a logical rebuttal for each. By postponing confrontations until the change process is well launched, the change agent will have time to acquire information about the resisters' point of view and modus operandi, which will be useful in mounting a counteroffensive.

Another tactic for reducing opposition from a special interest clique is to persuade the clique to change sides in the argument; to work *for* rather than *against* the change. A change agent can sometimes hire a clique by giving them prestige in the vanguard of the change movement. This tactic is effective, because bureaucratic organizations provide little recognition to highly productive rank-and-file workers. Another tactic for eliminating group opposition is to divide clique members, assigning each person to a different unit or work group, thereby destroying group syntality and dissipating group strength.

When leading subordinates through a change

process, a change agent should stay only slightly ahead of change targets in presenting new ideas and assigning responsibilities. By remaining in sync with principal change targets, the change agent can maximize their understanding of changing circumstances and facilitate reciprocal action by leaders and subordinates. On completion of each step in the change process, the change agent should inform employees about results of past actions and describe the next step to be taken. In other words, it is important for the change agent and change targets to maintain a continuing dialogue.

Another tactic for facilitating agency change is to prepare change targets for an improved level of function by helping them to acquire new problem-solving and human relations skills. However, skill training alone will not ensure the desired change if employees cannot adapt to changing environmental pressures.

A tactic for increasing employee support of change is to inveigle each worker into making an overt behavioral commitment to the change process. The employee to be won over should be forced to behave in a manner that can be justified only by acknowledging the need for the proposed change and acceptance of the proposed action plan. For example, to imbue a tradition-bound supervisor with enthusiasm for nursing case management, a vice-president of nursing might assign the supervisor to recruit and hire a select cadre of nurses to serve as case managers for a new nursing product line, such as rehabilitation of head injury patients.

Another change tactic is the art of compromise. When the change agent cannot persuade employees to adopt the entire change proposal, she or he should approach the planned change more slowly, setting for a succession of small gains through a series of political trade-offs with opponents.

A tactic for increasing change momentum is to provide change targets with positive reinforcement to ensure repetition of desired behavior. Using operant conditioning, the change agent should begin by rewarding any employee

behavior that falls within the general area of desired performance. When the employee's behavior is oriented in the desired direction, the change agent should reward successively closer approximations of the desired behavior until required habit patterns become firmly entrenched.

A useful tactic for organizational renewal is to initially disregard the interaction between top administration and nonmanagerial personnel (the most frequent focus for change efforts) and provide intensive skill training and psychological support for *middle* managers. Some experts claim that greatest organizational benefit comes not from pressuring employees at the top or bottom of the hierarchical pyramid but from dispelling middle managers' ignorance, insecurity, and impotence (Lippitt, 1969).

A tactic included in most change strategies is for the change agent to build new social systems to support change targets in desired behavior. Change agents and targets should meet frequently to share ideas, ventilate feelings, and resolve process problems. If a therapeutic approach to agency change seems advisable, sen-

sitivity training can be used to provide psychological support for key managers.

Occasionally, a nurse executive is called on to implement a nursing program or system that represents a marked departure from the organization's present course of action, as implementing nursing case management in a hospital where physicians have long assumed an autocratic manner in dealings with hospital administrators and nurses. Under such conditions, traditional models for effecting organizational change may be ineffective. When attempting to implement a program or project that is discontinuous with the agency's present operations, Allaire and Hirstrotu (1987) advise using radical change methods, such as reorientation, turn around, revitalization, or transformation. Following are examples of situations where radical change methods may be advisable.

1. *Reorientation.* A hospital that foresees declining demand for services to a particular population group, such as young child-bearing families, reduces emphasis on these services and expands services for another population group, such as the middle-aged or the elderly, who are predicted to increase in the agency's catchment area.
2. *Turnaround.* A hospital whose survival is threatened by the state's inability to pay Medicaid bills decreases inpatient beds and increases weekend and evening outpatient clinics, ambulatory surgery, and emergency facilities in order to attract employed persons who are covered by job-related health insurance plans.
3. *Revitalization.* When a home care agency that has specialized in geriatric care shows declining profits, administrators hire experienced pediatric intensive care nurses and market high-touch, high-tech home care for ventilator dependent children who are discharged from the area's children's hospital.
4. *Transformation.* A bankrupt inner-city

MEMO CAPSULE

Change Tactics

- Create worker unrest, dissatisfaction with status quo
- Alert workers to discrepancies between perceived and real situation.
- Link goals for proposed change to personal goals of key employees
- Strengthen early converts, persuade them to persuade others to change.
- "Hire" opponents by giving them prestige as leaders of change movement
- Provoke employees to "testify" to their support of the change process
- Reward employees for progressively closer approximations of desired behavior
- Create social support networks to encourage desired employee behavior

hospital is purchased by the state university and transformed into a teaching nursing home to be used by the university's medical, nursing, and social work students as a clinical laboratory.

Allaire and Firsirotu caution that radical change strategies can be successful only if administrators accurately diagnose the degree of agency-environment fit preceeding the change process and administrators stabilize the achieved change by recruiting and training new hires who are in sync with the new agency's vision and mission.

THE CHANGE PROCESS

The change process is analogous to the nursing process, because it includes assessment, planning, implementation, and evaluation.

Assessment

In the first step of the change process, the change agent should increase change targets' awareness of selected problems in the current system. In identifying system problems, the change agent should ignore more obvious symptoms of system strain (change targets will already have identified these), search deeply for underlying and covert dysfunctions, and discuss these with change targets.

Planning

In planning a change effort, the change agent should begin by pointing out what needs to be changed and why and then describe the future state of reality to be sought. The change agent should help employees to develop criteria for judging the efficacy of the change effort; should suggest possible courses of action for reaching specified goals and list limitations of each from an organizational and personal standpoint; should invite change targets to discuss these issues at some length; should help employees to choose the most desirable course of action and design a flow chart that details the sequence of

actions needed to move the system from present state to desired future state through the selected approach.

Implementation

To maximize success, the change agent should assign a specific individual to implement each action and provide coaching and support to ensure that required actions are performed effectively. She or he should coordinate the efforts of all involved employees to ensure timely performance of each task.

Shepherding a group of employees through a change process requires familiarity with the group process and skill in group dynamics. The stronger the bonds between group members, the more influence group norms will have on an individual's attitudes toward change. Therefore, a worker who shows interest in a proposed change during a private conversation with the change agent may later argue against the change in a meeting with more skeptical coworkers.

To change the nature of their interrelations, group members must confront one another openly, find meaning in the interchange, and perceive personal benefit from redefining their individual roles. If previous management practices or the group's history make it impossible for members to trust one another or hope for management support through the change effort, employees will not "level" enough with one another to improve group effectiveness.

Sometimes, after the change process has begun, previously committed change targets begin to display puzzling resistance behaviors. Unexpected and delayed resistance to change may result from psychological reactance by involved employees. Reactance results from a perceived loss of freedom when some aspect of a person's behavior has been threatened or eliminated. The threatened behavior suddenly seems increasingly important and desirable, so its loss is personally threatening. Some employees go to great lengths to reestablish behaviors that they have recently relinquished as part of a planned

change effort (New and Couillard, 1982). The appropriate response of the change agent to reactance behavior would be to meet with involved employees, describe the observed behavior, and invite change targets to discuss their initial acceptance of proposed change, their changing perceptions as the action plan was implemented, effects of the change process on self-perceptions and personal welfare, and effects of the reactance behavior on change agent, change supporters, and change opponents.

Group syntality is decreased by the entry of a new member or loss of an old member. A change agent who builds a primary work group into an effective force for change will be careful not to weaken the group by transferring members out or adding new members in the middle of a complex change process.

If change strategy and change tactics are carefully designed and change process has been under way for a long time, and considerable energy has been expended, but no progress is realized, the change agent should investigate the possibility of covert resistance by *all* involved parties. When the entire work force is heavily invested in the status quo, change leaders and targets may collude with one another to permit only slight alterations to occur in the work situation. All go through the motions of modifying policies, programs, and procedures but manage to stop short of achieving meaningful change in a situation that is familiar and comfortable for them all (Goren and Ottaway, 1985).

Evaluation

Finally, when the change process has run its course, the innovative effort should be evaluated. In the interest of accuracy, both change process and altered reality state should be assessed (Fig. 25-3). Criteria for evaluating change include ability of the new reality to support agency goals; efficiency of the change plan and process in achieving the desired reality; and satisfaction of executives, administrators, managers, change agents, and change targets with

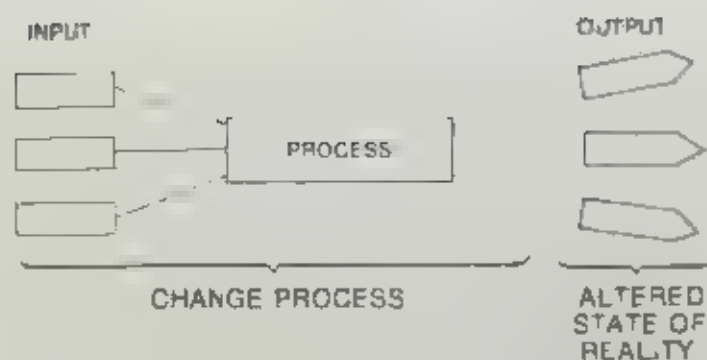


Figure 25-3 To evaluate change, assess both the change process and the change product.

interactions that occurred during the change process.

Principles of Organizational Change

There are principles of organizational change that a nurse manager should consider when planning and implementing change. First, change of any type represents loss to participants. Organization change may cause workers to experience loss of social support, economic loss, loss of status, or loss of perquisites. Even if the worker's situation is improved by a planned change, he or she may lose a sense of stability, known circumstances, and familiar companions. It is this threat of loss that causes workers to resist agency change.

Second, the more consistent the change goal with the employee's personal values, the more quickly she or he will accept the innovation. Knowledge of subordinates' attitudes enables a nurse manager to predict their reaction to proposed changes in goals and methods.

Third, an employee who helps to develop the activity plan for a proposed future reality feels responsible for outcomes of the change process. Therefore, subordinates should participate in planning the change process and should assist in implementing and evaluating the change.

Fourth, when an employee is required to repeatedly demonstrate a specific behavior, his or her attitude toward the behavior will shift from negative to positive in order to decrease cog-

nitive dissonance. Favorable employee attitudes toward proposed change are *not* a prerequisite for successful implementation of the change in a specific work group.

Fifth, the more difficult an individual's entry into a system, the greater his or her attraction to the system over time. In other words, personal hardships encountered by change targets in implementing the change process will not necessarily weaken their commitment to the situation that results from the change process.

Sixth, with each change in a series of changes, an individual's psychological adjustment to the changed situation occurs more slowly. A series of major organizational changes in rapid succession will disorganize and demoralize staff members.

Seventh, the diagnostic orientation of a change agent may become a self-fulfilling phenomenon. A change agent with a background in social psychology is likely to diagnose organizational problems as resulting from disturbed group dynamics. A change agent with a background in systems analysis is likely to diagnose organizational problems as resulting from inappropriate inputs, faulty throughput, or inadequate feedback.

Eighth, the greater the distance that a change proposal must travel from initiator to decision maker, the greater the likelihood that resistance will develop. Therefore, a change agent should communicate activity and strategic plans for change to top executives, middle managers, and lower-level workers *directly*, not through an intermediary.

Ninth, the roles of change agent and change target should be blurred to encourage reciprocal decisions and actions throughout all stages of change (Flippo, 1978). At different points in the change process, either change agent or change target should serve as catalyst, solution giver, process expert, resource linker, goad, or spokesperson for change.

Tenth, each innovative project should be designed both to produce a desired agency im-

provement and to provide employees with new insights, skills, and abilities that can be used in later change efforts. To paraphrase McLuhan, where organizational change is concerned, "The process is the product."

Deferents to Change

So far, it is apparent that organizational change is unavoidable, and, though costly, is advantageous to both agency and employees. On the other hand, certain characteristics of the work situation, organization, or work force may militate against change, making innovative efforts useless. For this reason, a change-oriented manager should avoid attempts to innovate under the following circumstances:

1. When there is a history of unresponsiveness to change
2. When there are administrators, managers, or employees who would use the change agent as pawn in a game of power politics
3. When personnel are strongly committed to a certain position
4. When change targets are powerless in the organizational influence network
5. When change targets show symptoms of social-psychological pathology, such as lying, manipulation, scapegoating, rigidity, or obsession (Havelock, 1973)

Even when change targets are ready for change and activity and strategic plans prepared by the change agent are acceptable to them, innovation may be impossible, because pressure for cost containment prevents a change that entails significant expenditures.

SUMMARY

"The times they are a-changing." In nursing changing times have brought changing goals, personnel, methods, and outcomes. Unfortunately, some changes in nursing practice and nursing management were imposed on the profession principally by external forces. Nursing changes would be more efficient and effec-

RESEARCH BRIEF

Nurse Managers and Decentralization

Purpose: Determine the extent to which decentralization influences job satisfaction, organizational commitment, and professional practice climate for nurse managers.

Sample: Nonprobability sample of 292 nurse managers in 161 hospitals, with average age of 42 and an average of 18 years in nursing. Twenty-eight percent held graduate degrees; 25% held diploma or associate degrees.

Method: Subjects completed four mailed questionnaires. Hage and Aiken Index of Centralization (HAIC), containing nine questions about allocation of decision making and hierarchy of authority; Munson and Heda Job Satisfaction Questionnaire (MHJSQ), a 13-item tool measured on a 7-point scale; Mowday Organizational Commitment Questionnaire (MOCQ), a 15-item tool measured on a 7-point scale; and Milner Polentini Professional Practice Climate Tool (MPPPCT), a 50-item tool measured on a 5-point scale.

Findings: The degree of decentralization (both

allocation of decision making and hierarchy of authority) was moderately positively correlated with managers' job satisfaction, organizational commitment, and perceived practice climate. Managers' age and nursing specialty had no effect on the relationship between decentralization and job satisfaction, organizational commitment, or practice climate.

Application: According to a conceptual model developed from study findings, decentralization is a predictor of nurse managers' job satisfaction, and managers' job satisfaction is a predictor of their organizational commitment and perceived professional practice climate. The most basic change possible in any nursing organization is to change the climate of employees' working environment. A nurse executive who desires to change nursing department climate from that of autocratic bureaucracy to that of professional autonomy would be advised to begin by decentralizing decision making to the operating level.

Source: Rongerman, E. Characteristics associated with decentralization experienced by nurse managers. *Western Journal of Nursing Research* 12(3):336-346, 1990

tive if guided by internal, as well as external, change agents, because nursing experts have a greater understanding than outsiders of the manner in which various nursing system elements interact. Each nurse manager should develop skills for managing change (unfreezing the status quo, effecting movement toward a new system, and refreezing the new system to establish a new status quo). Each manager should also learn to handle employees' resistance to planned change and assist subordinates to cope with the anxiety and fear that accompany shifting circumstances.

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Managing Conflict

Once more into the breach, dear friends; once more.

WILLIAM SHAKESPEARE

OBJECTIVES

After reading this chapter, you should be able to:

1. Identify aspects of your professional role that predispose to conflict with nurse administrators or physicians.
2. Analyze a conflict between yourself and a coworker, and identify substantive and emotional causes for the conflict.
3. Identify one instance of conflict with a coworker that enabled you to increase productivity or improve problem-solving ability.
4. Analyze an ongoing conflict in your agency, and identify the original conflict issue and secondary issues that were raised as the dispute escalated.

Conflict is a clash between hostile or opposing parties. The nurse manager is frequently enmeshed in conflict through her or his leader-mediator-coordinator role in relation to other health workers. Previously, conflict was considered undesirable, and conflict-management efforts were designed to prevent or eliminate conflict between individuals and groups. Now, experts agree that conflict is a natural phenomenon that strengthens an organization by reconciling divergent opinions (Sexton, 1986). According to this view, conflict often has

a unifying, rather than a divisive, effect on a work force. Kaluzny (1989) claims that conflict is a normal accompaniment to multidisciplinary care planning. Health service agencies are characterized by high levels of uncertainty, and conscientious health professionals can be expected to disagree about important patient care issues. Furthermore, conflict is one means by which a progressive minority in the work force can persuade the more traditional majority to make innovative improvements in agency plans, policies, programs, and procedures.

CAUSES OF CONFLICT

Many human needs are satisfied through social intercourse. Frustration of basic needs creates hostility. There is potential for conflict in every human relationship. Human interactions that are likely to provoke conflict are those characterized by competition, domination, and provocation. According to Tubbs (1988), intraagency conflicts arise from such causes as differences in information, values, and interests; resource scarcity; intergroup rivalry for rewards; task difficulty; skill differences; and pressures to avoid failure.

Where conditions predispose coworkers to disagree, any change from usual activity is apt to precipitate conflict. A nursing leader often engages in conflict as a consequence of her or his management responsibilities. Nurse managers are expected to serve as change agents, and their implementation of any organizational change is likely to threaten vested interests and upset the balance of power, so that conflict results.

Many factors can provoke conflict in a health agency. Health workers are highly interdependent, forced to rely on one another for information or assistance in providing patient care. Being dependent on others to fulfill one's assigned duties subjects a worker to frustration. Any failure by the other to provide needed information or support at the appropriate time will block the individual's achievement of work goals. Not only is conflict between interdependent workers frequent, the closer the relationship between workers, the greater the potential for conflict. Psychological closeness predisposes to conflict, because self-revelation renders an individual vulnerable to attack—and even invites hostilities from persons most familiar with the worker's frailties.

In some instances of organizational conflict, one party is motivated by the privation of basic needs. The aggrieved party is frustrated because personal goals exceed achievement. Sometimes, conflict between coworkers results from varying perceptions of the work situation. Disputants'

perceptions may differ because they approach the work with different facts, different work responsibilities, or different personal goals (Hodes and Van Crombrughe, 1990; Jacobsen-Webb, 1985).

Role is a set of expected behaviors that are associated with a particular position. Role ambiguity, role conflict, and role dissensus predispose to conflict between workers. Role ambiguity is the confusion about the tasks assigned to a particular position. Role ambiguity results from unclear job descriptions and predisposes to territorial disputes between coworkers. Role conflict is the assignment of contradictory behaviors to a particular position. Role conflict renders an incumbent unable to function effectively and creates misunderstandings with supervisors and coworkers. Role dissensus is a disagreement between the worker and others about job responsibilities. Role dissensus produces disappointment, frustration, and antagonism between the worker and significant others.

The more highly differentiated the positions in an agency, the more common are disagreements about expected role behaviors (Labovitz, 1985). Opportunities for interpersonal conflict also increase with increased hierarchical depth and increased variety of health disciplines and job titles.

Role change provokes worker uncertainty and predisposes to conflict (Katzman and Roberts, 1988). When primary nursing replaces team nursing, staff nurses must switch from the anonymity of team membership to a highly visible entrepreneurial role. When a bureaucratic head nurse is replaced by a clinical specialist or nurse coordinator, the new, clinically oriented manager may find herself or himself in conflict with more traditional managers. According to Glennon (1985), incongruities between "professional" and "bureaucratic" nursing roles are responsible for many nurse-physician and nurse-administrator conflicts. Contemporary nurses see themselves as autonomous professionals who are highly competent in using scientific knowledge. Some hospital administrators and

physicians see nurses as selfless, dedicated servants who are unfailingly loyal to superiors and compliant with bureaucratic policies. Consequently, nurses' conflicts with physicians and hospital administrators may be battles for role determination, with nurses pushing for more autonomy, power, and recognition than other stakeholders are willing to grant them.

Another cause for conflict is variance between an employee's expected behavior and demonstrated behavior. In the past, hospital schools of nursing taught students to be docile, deferent, and subservient toward physicians, hospital administrators, and nursing supervisors. Today's nurses, influenced by the women's movement, assertiveness training, and desire for professional status, are inclined to speak up, ask questions, and challenge authority. The assertiveness of younger nurses is often interpreted as aggressiveness by older health care workers and provokes conflict between younger and older employees.

Conflict between individuals or groups can arise from substantive or emotional causes. Substantive causes are differences that relate to issues external to disputants, such as disagreements over policy or procedure, competition for scarce resources, or arguments about goals. Emotional causes are unpleasant feelings and attitudes of disputants, such as fear, distrust, resentment, and anger (Booth, 1982). Whether the initial cause for misunderstanding is substantive or emotional, conflict is heightened by disputants' differing perceptions of the interaction, and communication problems result. Following the onset of hostilities, each disputant perceives most clearly any information that confirms her or his point of view and ignores or misperceives information supporting the opponent's position. As conflict escalates, each disputant senses the other's growing closed-mindedness, feels misunderstood, and becomes defensive and hostile.

A less common reason for interpersonal conflict is one person's desire to acquire information about an unknown other (Coser, 1956).

Inexplicable hostility displayed by a student nurse toward a new instructor and disproportionate resentment displayed by an "old guard" supervisor toward a new vice-president of nursing may be attempts to test the newcomer's behavior under fire.

Jandt (1987) claims that much of the conflict in health agencies results from organizational structure characteristics, rather than personality incompatibility. Employees' strong identification with their primary work group causes them to judge performance of other units against the values and goals of their own group. Where there is great value incongruity and employees openly criticize workers unlike themselves, conflict develops.

Often, interpersonal conflict in a health agency arises from a sudden shift in power balance. Each employee has power to move selected others; but employees differ in the amount of power they wield. The power balance in a health agency is continuously shifting, as each structural and functional change advantages some employees and disadvantages others. Power is never freely given, so that any attempt to seize power or prevent power loss is likely to create conflict between involved parties. When nurses unionize to obtain control over staffing, assignment, and promotional policies, administrators may interpret the nurses' unionizing activities as an attempt to seize management authority. Consequently, nurse administrators often react to union leaders and organizers with open hostility.

MEMO CAPSULE

Causes of Conflict

- Dissimilar knowledge, skills, values, interests
- Scarce resources
- Rivalry for rewards
- Role ambiguity, dissensus
- Unworkable organization structure
- Shift in organizational power base

EFFECTS OF CONFLICT

Under certain conditions, conflict can facilitate work group functioning; therefore, the nurse manager should develop the ability to recognize, assess, and manage conflict. Studies show that conflict enhances group maintenance by clearing the air of irritations that would impair group unity and impede communication if left unexpressed (Bales, 1950). Tubbs (1988) lists the following as advantages of organizational conflict: decreases likelihood of groupthink; prevents intellectual stagnation; stimulates employee curiosity; provides impetus for problem solving; and facilitates employees' personal change and maturation.

MEMO CAPSULE

Advantages of Conflict

- Prevent "groupthink."
- Provide intellectual stimulation.
- Foster problem solving.
- Facilitate personal maturation.

A moderate level of interpersonal conflict increases worker motivation, improves problem solving, and facilitates understanding another's point of view (Sexton, 1986). In bureaucratic organizations, where there is clear division of responsibility and specialization of labor, conflict strengthens internal boundaries between workers in different specialties and levels (Simmel, 1955).

Psychologists claim that contentious individuals often use conflict to satisfy excessive needs for stimulation or recognition. A person whose needs for recognition are not satisfied by praise, approbation, or pleasant human intercourse often seek attention by engaging coworkers in conflict.

The psychological effects of conflict may be good or bad, depending on the level and duration of conflict. In general, participation in

conflict engenders a sense of crisis and produces feelings of anxiety and urgency. Mild stress or anxiety stimulates creative thinking and improves problem solving. Severe stress and anxiety narrow the focus of attention, so that fewer courses of action can be envisioned. When conflict persists and becomes chronic, participants become increasingly defensive and disinclined to exchange information. Communication breakdown threatens the unity of a primary work group. Cumulative emotional stress resulting from prolonged conflict is thought to predispose employees to such psychosomatic illness as hypertension, colds, peptic ulcer, colitis, asthma, dermatitis, or allergy (Green, 1986).

Disputants may resort to excessive use of defense mechanisms in coping with conflict-induced stress. For instance, a conflict participant may rationalize his hostile actions toward opponents. A disputant may project onto opponents his own unacceptable drive for power or retribution; may displace anger felt toward an opponent onto innocent bystanders; may compensate for hostile feelings toward an opponent by displaying excessively agreeable or subservient behavior toward the opponent; may repress hostile feelings, thereby providing subconscious motivation for work errors, accidents, and failures; may fix on a single conflict behavior and shun more effective means of resolving disagreement; or may dodge conflict by resorting to fancied interchange with the opponent. Finally, a disputant may avoid conflict altogether by fleeing the workplace, through illness or resignation.

NATURE OF CONFLICT

The nurse manager is responsible for maintaining an environment that facilitates employees' work and must manage conflict so as to minimize interpersonal stress. To control worker conflict, the manager must understand stages of conflict and natural history of conflict development.

Each conflict situation is dynamic and changes over time. Usually, conflict is cyclical.

In the first step of the cycle, conflict is latent. Although participants have developed suspicious and hostile feelings toward one another, overt evidence of contention is absent. The second step of the cycle consists of an outbreak of openly hostile verbal or motor behavior between disputants. In the third step of the cycle each disputant reacts to the hostile behavior of the other by temporary withdrawal or conflict disengagement. Finally, the cycle is completed and hostilities are less manifest for a while, though disputants harbor antagonistic feelings that may provoke even more severe hostilities under further provocation.

Although conflict alternates between periods of latent and open hostility, the manager should realize that if conflict persists, conflict issues and tactics will change from one cycle to the next. As conflict changes the disputants, the disputants change the conflict. Consequently, interventions that are effective in early stages, when disputants are relatively unchanged, may be ineffective during later stages and may exacerbate hostilities.

Conflict may be direct or indirect. In direct conflict disputants focus interests and actions on one another and the issue underlying disagreement. In indirect conflict disputants attack one another through others and conceal the primary issue by talking about substitute issues. Direct conflict situations generate considerable organizational "noise" but usually can be easily controlled by direct managerial intervention. Unfortunately, many individual and organizational characteristics discourage direct approach to conflict. First, direct expression of hostility consumes considerable psychic energy and is extremely taxing to disputants. Second, organizational protocols discourage direct expressions of anger among coworkers. Because individual and organizational characteristics limit open expressions of hostility, most conflict is expressed indirectly. Generally, indirect conflicts last longer than direct conflicts, so nurse managers spend more time in handling indirect, less obvious forms of contention. Fortunately,

consciousness raising, sensitivity training, and assertiveness training can improve an individual's ability to confront and manage conflict directly, thereby discouraging development of indirect conflict.

A conflict situation is dynamic with respect to participants' energy expenditure and amount of organizational "noise." When conflict becomes overt, each participant becomes more strongly committed to her or his position, and conflict behavior escalates. With escalation, there is a tendency for disputants to bring additional issues into the controversy.

Initially, conflict may develop over a substantive or emotional issue. If conflict persists, both types of issues are raised. Frictions developing during dispute over substantive issues lead to emotional conflict, because disapproval of another's ideas spreads to dislike for the person representing the ideas. During an emotional dispute, substantive issues arise from the subconscious desire of each disputant to differentiate himself as much as possible from the object of his antagonism.

As additional issues are raised and disputants become polarized on the issues, they attempt to draw others into the conflict. Sometimes initially uninvolved bystanders see advantage to themselves in the victory of one or the other combatant and enter the conflict to advance their own agendas. Interestingly, conflict is most violent when participants think of themselves as representatives of opposing groups, rather than individual antagonists (Coser, 1956).

Not only may conflict escalate, it may deescalate. During long-standing organizational conflict there may be several cycles of escalation and de-escalation, so that symptoms of de-escalation do not necessarily signify that conflict is resolving.

Conflict may terminate favorably, in conciliation or compromise; or unfavorably, in violence and alienation. As long as nurses occupy subservient roles in the health industry, their lack of political power will predispose them to unsatisfactory conflict resolution with more

powerful physicians or agency administrators, resulting in increasing alienation and turnover of nursing personnel (Green, 1986).

Scapegoating is an unhealthy means of conflict management and should be thwarted by a nurse manager, because it causes severe personal suffering and system dysfunction. When groups in an agency conflict, combat stress causes increased anxiety and contentiousness in members of both groups. However, syntality, or a sense of togetherness, is necessary for the maintenance of group structure. Group members realize that the need for syntality makes it dangerous to express overt antagonism toward members of their own "in-group." Nevertheless, interactions among anxious group members create hostile feelings that must be discharged to ensure continuing communication and cooperation in the group. To avoid alienating powerful members of the in-group, members displace negative feelings and attitudes onto a peripheral group member, usually an individual who is already the target for group antagonism. This scapegoat becomes the target for hostility from all group members, so that group ties can be preserved, despite external stress.

MEMO CAPSULE

Occasional Undesirable Effects of Conflict

- Contention spreads from original to peripheral issues.
- Disputants pull others into the conflict.
- Unresolved conflict causes alienation, violence
- Disputants scapegoat a peripheral group member

Successful conflict resolution does not ensure that peace will prevail. Experienced managers know that resolution of a conflict issue brings another issue into focus and initiates

another conflict cycle, which may have greater or lesser potential for resolution (Alinsky, 1971).

ANALYSIS OF CONFLICT

To intervene helpfully in conflict situations, a manager must be able to analyze and diagnose conflict accurately. Through investigation of the dispute, she or he must be able to identify participants, issues, type of conflict, stage of conflict, conflict-related behaviors, conflict severity, and probable consequences to participants and coworkers. To assess the nature of conflict between two employees, a manager should determine the purpose for disputants' conflict behavior. According to Megginson et al (1983), individuals differ in cooperativeness and assertiveness, so that disputants' intentions may be to avoid, compete, compromise with, accommodate, or collaborate with one another. If one participant wishes to compete while the other wishes to withdraw, the manager should coach disputants so as to damp the assertiveness of one, increase the assertiveness of the other, and encourage both to cooperate, in hope of moving the two toward compromise, if not collaborative problem solving.

Roles in Conflict Situations

In a classic conflict situation there are three participants: aggressor, victim, and instigator (Eisenberg and Ilardo, 1972). The three have different motivations. The aggressor enjoys attacking others; the victim collects indignities and enjoys suffering; the instigator enjoys provoking and observing others' conflict. In any dispute, the principals tend to move among these three roles as conflict evolves. However, each participant favors one role above the others and portrays that role throughout most of the interchange. A manager should determine which party in a dispute is playing each role, because intervention strategies require that the power of the aggressor and victim be equalized, and control techniques require elimination of "trigger" actions by the instigator.

MEMO CAPSULE

Classical Conflict Participants

- Aggressor: Enjoys attacking others.
- Victim: Collects indignities.
- Instigator: Enjoys provoking, observing others' conflict.

Some conflicts have more than three participants. In a dispute between cliques of the larger work group, a manager must identify members of each clique in order to provide appropriate support or restraint. Clique loyalties are often deliberately concealed from outsiders, and warring cliques are prone to indirect conflict, so that, often, the manager must spend considerable time identifying membership and strategies of each clique engaged in the struggle.

Issues Underlying Conflict

Intervention may require directing disputants' attention toward or away from basic conflict issues. Therefore, the manager must be able to differentiate the principal conflict issue from symptomatic issues that camouflage it. The basic conflict issue is the chief reason for disputants' disagreement. When an individual or group cannot acknowledge the basic reason for antagonism, a socially acceptable "substitute" issue is manufactured to legitimize conflict. Usually, the substitute issue is a "safe" topic of current concern to the disputant's colleagues and is often the focus of current publications in professional literature. A resident physician who is envious of a clinical nurse specialist's knowledge and skill may attempt to legitimize his envy of the specialist's popularity with patients by complaining that the clinical nurse specialist shows lack of respect for physicians. Symptomatic issues raised by combatants are often closely related to the basic conflict issue.

In conflicts based on emotional issues, combatants are reluctant to acknowledge the underlying conflict issue for fear their sensitivity

to another's influence will be seen as weakness. In some cases, an individual's appearance, dress, or behavior provokes such distrust, fear, or disgust in another as to engender hostility. Reluctant to admit having been upset by another's appearance or behavior, the offended individual "manufactures" a substantive issue to justify antagonism toward the disliked individual.

Types of Conflict

After the basic conflict issue is identified, the manager should determine what type of conflict exists. Usually, it is easy to determine whether conflict is latent or overt but difficult to decide whether direct or indirect conflict tactics are being used. By analyzing the character of messages exchanged by disputants and counting the number of communication links between them, a manager can discern whether message senders acknowledge feelings, confront opponents directly, and confine remarks to basic issues (all are direct conflict tactics). If participants plant rumors, use bystanders to play "Let's You and Him Fight" (Berne, 1964), or engage in frequent crossed transactions during disputation (Harris, 1969), indirect conflict tactics are being used. A common type of conflict in health agencies is physician-nurse conflict. According to some experts, disturbances in physician-nurse relationships are due to an enduring pattern of physician dominance and nurse deference and to efforts of feminist nurses to shed their traditional handmaiden role (Prescott and Browne, 1985). In a study of clinic physicians and hospital nurses, it was discovered that physicians did not understand staff nurse role complexity or the nursing chain of command. Nurses in the same study had a much better understanding of the hospital organization and were more willing than physicians to conform to formally designated work roles. Both physicians and nurses believed that hospital nurses should be given greater authority to make independent clinical judgments (Hodes and Van Crombrughe, 1990). These researchers concluded that nurses should take the initiative in resolving physician-nurse con-

fluct. They recommended that each nurse acquire a high level of clinical knowledge and skill, then demonstrate professional ability and commitment by performing thoroughgoing assessment of each patient in her or his care and sharing assessment data and the resulting care plan with the patient's physician. When this is done, nurses' errors and uninformed questioning of physician orders will decrease, thereby eliminating common causes for physician-nurse conflict.

A study of a northeastern hospital revealed that physicians' frequent criticism of nurses kept regular staff nurses in a subordinate role. General acceptance of the dominant role of male physicians prevented nurse practitioners in the same hospital from fully implementing their expanded roles (Katzman and Roberts, 1988). These researchers found a surprising lack of nurse-physician interaction in the clinical area because of absence of built-in mechanisms for daily, face-to-face communication between the two groups. Occasionally, nurses were invited to accompany the physicians on ward rounds or to attend physicians' weekly clinical conferences; but heavy workload made it impossible for most nurses to attend. These experts concluded that disagreement within the nursing profession over role definitions for the nurse practitioner and other specialists has exacerbated nurse-physician conflict. If medical and nursing curricula were designed so that students of the two disciplines could learn and work together during undergraduate education, both would begin professional practice with a greater understanding and acceptance of the other's role, thereby defusing later conflict.

Phases of Conflict Development

When the type of conflict has been identified, the manager should determine the phase of conflict development and seriousness of disputants' disagreement. A conflict that runs full course from inception to satisfactory resolution proceeds through two phases: (1) differentiation; and (2) integration. During differentiation, dis-

putants identify issues that divide them and ventilate feelings about differences. During integration, disputants explore similarities, acknowledge agreement on some matters, and identify some positive feelings toward each other. It is easy to distinguish between the two phases of conflict, as messages during differentiation are primarily hostile and messages during integration contain elements of positive feeling.

The greatest difficulty in analyzing a phase of conflict development is to decide whether the differentiation phase has just begun, is well along, or is nearly complete. This decision should be carefully made by the manager or mediator. When attempts are made to encourage integration before differentiation has been completed, conflict resolution is likely to be short-lived.

MEMO CAPSULE

Conflict Phases

- Differentiation: Identify points of disagreement, ventilate feelings of frustration, anger, fear
- Integration: Explore similarity of interests, concerns, acknowledge points of agreement, verbalize positive feelings for one another

According to Smith (1989), conflict tends to move around in an organization, becoming expressed at locations far removed from place of origin. Conflict movement from one organizational level or division to another results from the psychological processes of splitting or triangulation. There is a tendency for strong love-hate feelings that originate from a common source (an individual or group) to be split and projected onto different objects, creating a "good administrator" and a "bad administrator," a "good department" and a "bad department," and so on. Splitting may be complementary or symmetrical. In complementary splitting, the split parts take on different roles,

which combine to constitute a whole (leader-follower, teacher-student). With symmetrical splitting, the split parts compete for the same role (e.g., nurse and medical caregivers vying to become leader of a patient's health care team). Bowen (1978) claims that when tension develops in a relationship between two parties (individuals or groups), there is tendency for one of the parties to draw a third party into the conflict (triangulation). Through repeated conflict triangulation, communication pathways are established that consistently channel organizational tensions toward selected divisions or units. Thus, an apparently problematic organizational unit may be the recipient, rather than the source, of organizational unrest.

According to Smith (1989), when conflict develops in an organizational unit, the work group is likely to split horizontally. If one faction brings a third group from a different hierarchical level into the conflict, the original horizontal conflict is likely to create a vertical struggle between parties not originally involved. In turn, these vertical tensions can be transferred to alternate locations and provoke horizontal tensions in a different part of the organization. When a nurse manager attempts to control harmful intraagency conflict, she or he should be careful not to focus attention exclusively on outward manifestations of conflict, lest the solution offer only temporary relief for a smoldering conflict that is driven underground for a time and erupts more violently elsewhere.

MEMO CAPSULE

Conflict Transformation

- **Splitting:** Separating a strong emotion from its cause
- **Projection:** Displacing emotion onto a non-responsible agent
- **Triangulation:** One combatant drawing a third party into the conflict

Severity of Conflict

Conflict severity can be assessed by noting the frequency and duration of disputants' encounters, emotional level of their interchange, and disputants' open- or close-mindedness. If the conflict is serious, is escalating, threatens to involve others, and paralyzes normal operations, the manager should intervene immediately to deescalate the conflict and confine it to fewest possible participants.

Consequences of Conflict

As work stress increases, a worker's capacity for complex thought is reduced. With low and moderate levels of stress, a worker's capacity for critical problem solving increases above normal. However, under high levels of stress a worker interprets surroundings incorrectly, examines fewer alternative actions, and uses faulty reasoning. Thus, when disputants suffer high levels of conflict-based stress, they are incapable of reasoned argument and effective problem solving. Under such conditions, the manager should intervene to halt hostilities but should not implement negotiations.

On the other hand, if conflict is chronic, disputants' stress level is minimal, and indirect conflict tactics prevail, the dispute may continue as a series of smoldering feuds, and workers will spend excessive time in politicking to gain advantage over adversaries. If the issue underlying a slow-burning dispute is amenable to treatment, the manager may deliberately escalate the conflict to bring hostilities into the open and provoke confrontation, to pave the way for concession or compromise. In a study by Marriner (1982) nurses reported that collaborating and compromising methods were more successful in resolving conflict than avoiding and competing.

A nurse manager's responsibility is to provide workers with whatever is needed to perform their jobs effectively. This entails providing both needed equipment and supplies and a physical and psychological environment in which employees can use knowledge and skills to advan-

rage. A psychologically supportive work environment is one where conflict is sufficiently controlled to motivate creative performance and prevent work group disorganization.

INTERVENTION IN CONFLICT

As much as 25 percent of the time of some managers is spent in conflict management (Jandt, 1987). After noting that conflict exists and diagnosing the nature, type, cause, duration, severity, and extent of conflict, a manager must decide whether to ignore the dispute or intervene in some fashion. If the underlying conflict issue is minor, only two persons are involved, patient care is not suffering, and disputants are capable of resolving disagreement without help, the manager should ignore the conflict and let it run a natural course. For example, if a minor dispute develops between a physician and a previously passive nurse over the nurse's increasing assertiveness in questioning medication orders, the manager may ignore the conflict and allow the nurse and physician to work out agreement on the substantive issue (their changed manner of relating) and the symptomatic issue (disagreement about medication orders).

On the other hand, if a conflict concerns patient care issues, escalates rapidly, draws in initially uninvolved workers, and destroys teamwork, the manager should intervene immediately to prevent patient care problems.

If a manager decides that intervention is needed, she or he must determine whether she or he is the best person to mediate the dispute. To answer that question, a manager must know her or his primary motive for intervening in the dispute. Ideally, the manager's reason for action would not be the pursuit of political power. However, a manager needs practice in mediating conflict in order to expand her or his repertoire of leadership skills. Group dynamics skills acquired during conflict mediation increase a manager's personal power, which increases potential for professional advancement.

In the past, the usual motive for intervening

between disputants was to keep the peace. A better reason for conflict intervention would be to improve employee productivity and satisfaction.

After analyzing personal motives for intervening in a dispute, the manager must decide when to intercede. It is unwise to intervene in serious conflict when there is little hope of conciliation. If both disputants believe their position is sound and neither will listen to the other's or an outsider's opinions, there is slim chance for settlement. In such cases the mediator should postpone negotiations until one or both participants shows greater receptivity. If one disputant takes a rigid stand and the other seems willing to adjust, a skilled negotiator may be able to guide the pair to a workable compromise. However, the rigidity of a "stand-patter" may cause defensiveness and resistance in the more open-minded individual. There is greatest likelihood that a manager can negotiate settlement between disputants when both are willing to search for a mutually acceptable solution to their problem.

If conflict is of long duration and erodes employee morale, but has a low intensity and the parties are only mildly anxious, a manager may postpone negotiations to deliberately escalate conflict. This maneuver may increase participants' discomfort enough to make them seek resolution. Conflict can be escalated by increasing the frequency of disputants' contact, bringing them face-to-face without others present and with limited means of escape, or by shifting their dialogue from symptomatic to basic issues.

When a manager desires to intervene between disputants, the site for negotiation should be carefully selected. To solve a minor disagreement between unit personnel, the meeting may be held in the manager's office. If conflict is serious, involves workers in several disciplines, is based on complex issues, and has serious consequences, the meeting should be held on neutral turf, apart from the unit, in a formal conference room. Negotiations should be conducted in formal fashion, and detailed minutes

kept of proceedings. If disputants are unequal in organizational power and status, the negotiation site should favor the disadvantaged party. A nursing service conference room would be preferred to a physicians' lounge for a meeting to negotiate a nurse-physician conflict.

Whether the conflict mediator is experienced or inexperienced, careful planning is needed to select appropriate interventions. The best means of relieving conflict between individuals is to eliminate the underlying cause. This is difficult to do if conflict is chronic, because subsidiary issues will have been raised by disputants and others drawn into the altercation. If the underlying conflict issue cannot be identified, the manager should concentrate on emotional issues separating disputants, either suppressing conflict by preventing open expression of hostility or defusing conflict by encouraging both parties to ventilate feelings.

If a dispute disrupts patient care and disputants refuse to conciliate, the manager should use positional authority to prevent open warfare. Unfortunately, when external pressure is used to suppress conflict, open skirmishes may decrease, but passive resistance and manipulative behavior are apt to increase.

MEMO CAPSULE

Reasons for Conflict Intervention

- Reduce environmental noise, restore calm.
- Increase parties' discomfort to stimulate resolution.
- Eliminate underlying cause of conflict.
- Resolve secondary emotional tensions between combatants.

According to Collyer (1989), a manager's conflict-management strategy is a reflection of her or his preferred leadership style. A manager with low concern for task completion and for relationships will use an avoidance approach to

conflict, refusing to acknowledge disagreements with others and distancing herself or himself from others' disagreements. A manager with high concern for task completion and low concern for relationships will use a power strategy of conflict management, issuing orders and threatening punishment to suppress conflict among subordinates. A manager with low concern for task completion and high concern for relationships will use an accommodating strategy of conflict management, smoothing over points of disagreement and emphasizing disputants' common interests in order to smother conflict. A manager with moderate and equal concern for task completion and relationships will use a compromising strategy for conflict management, showing a willingness to relinquish certain demands in order to negotiate with opponents for a mutually acceptable resolution of disagreement. A manager with high concern for both task completion and employee relationships uses a collaborative approach to conflict management, confronting conflict issues openly and developing a climate of trust, so that disputants can explore a full range of alternatives before selecting a solution that maximizes benefits for all.

According to Silber (1984), the usual response to an angry attack from another is a defensive, protective stance. A head nurse is responsible for managing subordinates' activities to optimize patient welfare. The ever-present possibility of patient injury from disease complications, faulty equipment, and untoward drug and treatment effects occasionally require the head nurse to question or correct unit nurses. Having been socialized to inferior status in health agency hierarchy, staff nurses often respond to questions and corrections in a defensive, argumentative manner. Silber advises a manager who finds herself or himself on the receiving end of a staff nurse's angry response to correction to "sponge up" the nurse's anguish and reassure her or his damaged ego before discussing the problem further. When this has been accomplished, the manager should feed back to

the nurse her or his comments about the problem, to give the nurse opportunity to correct any misconceptions by the manager. Next, the manager should calmly and objectively explain her or his point of view and ask the nurse to feed back her or his understanding of the manager's viewpoint. Finally, manager and subordinate should search for a common bridge of agreement from which to design a workable solution for their common problem.

Cummings et al. (1987) claim that a manager's social style influences her or his conflict management behaviors. These experts differentiate conflict-management behaviors of managers who display amiable, driving, expressive, and analytical social styles thus:

1. Amiable managers are low in assertiveness and high in responsiveness. They tend to accommodate others' concerns and neglect their own. Their preferred conflict behaviors are nonconfrontational, such as avoidance and withdrawal.
2. Driving managers are highly assertive and low in responsiveness. They are highly competitive, seeking to satisfy personal needs at others' expense. Their preferred conflict approach is an "I win, you lose" strategy.
3. Expressive managers are highly assertive and highly responsive. They are inclined toward excitable, undisciplined, and friendly behavior. Their preferred conflict behavior is integrating the concerns of all parties into a mutually satisfactory solution.
4. Analytical managers are low in assertiveness and low in responsiveness. They are typically serious, persistent, indecisive, and orderly. They are inclined to avoid conflict, rather than to select a particular conflict management strategy.

Thomas and Kilmann (1974) developed a self-report tool for determining whether an individual's preferred behavior in conflict situations was accommodation, avoidance, collab-

oration, competition, or compromise. When this tool was used to study medical-surgical staff nurses and managers in 20 West Coast hospitals, avoidance was the most commonly used conflict management style. Nurse managers and staff nurses differed in that managers used compromise nearly as frequently as avoidance (Cavanagh, 1991). The researcher concluded that conflict avoidance is appropriate when the nurse has little likelihood of achieving personal objectives (as in some physician-nurse or administrator-nurse conflicts). However, persistent conflict avoidance by nurses permits important patient care decisions to be made by other professionals who are less aware of patient needs.

Responsibilities of the Mediator

A conflict mediator has several responsibilities. First, the mediator should determine each individual's motivation for conflict and for negotiation. There is little point in negotiating unless at least one participant wants a mutually satisfactory solution to the underlying problem. If disputants have dissimilar motives for settlement, that lack of agreement may serve as basis for further conflict.

Second, in choosing a meeting place and time and in refereeing discussion, the mediator should maneuver events to equalize situational power between participants. In general, persons with higher status speak more frequently and at greater length than those with lower status. Therefore, the mediator should interrupt at intervals and invite the low-status person to respond to the opponent's statements and voice her or his own opinions.

Extreme power difference between disputants hampers conflict resolution. Persons with power tend to use it (Webber et al., 1985). Frequently, physicians and health agency administrators seek to resolve conflict with a nurse by demanding that the nurse be fired. Also, high-power persons underestimate the positive intentions of low-power persons. Thus, a high power individual is frequently cynical about an offer

of cooperation from a low-power individual, seeing the offer as evidence of compliance rather than attitude change. To minimize power problems, a manager should referee disputants' discussion to prevent the high-power person from threatening the other. The manager should reiterate statements by the lower-power person that signify intention to agree, conciliate, or cooperate.

A third responsibility of a mediator is to synchronize disputants' positive and negative moods and moves. Communication between disputants is most effective when the two are "on the same wavelength," that is, when both express negative feelings during differentiation and positive feelings during integration. The mediator's responsibility is to moderate disputants' conversation and keep them focused on the same topics throughout the interchange.

A mediator's fourth responsibility is to clarify for each party the adversary's claims and arguments (Blake and Mouton, 1984). Anxiety narrows perception; therefore, the mediator should maintain an environment that relieves disputants' tensions and defensiveness (Silber, 1984). The mediator should plan and write out a statement to use in opening the conference, because the negotiator's opening remarks will set the tone for the entire discussion. A helpful introductory statement might be: "I've called the two of you together to talk about your difference of opinion concerning patient assignments. Probably each of you has some justification for the viewpoints you expressed this morning. Possibly neither of you has given full consideration to the other's opinions. The purpose for this meeting is to encourage you to exchange opinions about this issue and develop a plan for future assignments that will prevent further disagreements."

To help each party understand the other's claims and arguments, the mediator should insist that each listen carefully to the other's comments. One way to test whether disputants are listening effectively is to make the following discussion rule: Before either party can express an

idea or opinion, she or he must summarize the other's most recent statement to the other's satisfaction.

While helping disputants to listen carefully to one another, the mediator should listen intently to them both. The mediator should identify key themes in the discussion and restate these themes at intervals during discussion. The mediator should strengthen ideas raised by the low-power person, confront each disputant with her or his inconsistencies or exaggerations, and summarize each discussion segment before permitting disputants to move to another topic.

To maximize understanding, the mediator should encourage each individual to provide feedback to the other—describing the effect on herself or himself of the other's statements. To stimulate feedback from a reluctant disputant, the mediator may express her or his own observations of the interchange, but the mediator's comments should be brief and phrased in an objective, nonjudgmental manner. If fear or embarrassment prevents one party from expressing herself or himself freely during negotiations, the mediator should provide liberal encouragement to put that person at ease and bring forth his or her side of the argument.

To facilitate free expression of feeling during negotiations, the mediator must protect both parties' self-respect. Before negotiations begin the mediator should take each disputant aside and give her or him brief training in methods of "effective expression" and "empathic responding." Effective expression requires a person to avoid generalizations, verbalize statements in behavioral terms, acknowledge the subjectivity of perceptions, associate each perception with the feeling that it evokes, state positive as well as negative aspects of each event, and suggest a specific solution to resolve the problem. Empathic responding requires a person to listen without asking questions, without giving opinion, without making interpretations, without giving suggestions, and without judging; then to respond empathically to the other's comments before expressing personal wishes

or opinions. When a program proposal is finally approved despite strong argument by an opposing minority, the objections raised by dissenters should be used to monitor each step of program implementation (Brown, 1990).

If one disputant is less prepared for discussion than the other, the mediator should meet separately with the disadvantaged party and help her or him to prepare for confrontation. Preparation should include identifying issues likely to surface during discussion, marshaling facts to support arguments, selecting a strategy to sway the opponent's opinion, and role-playing key points of the argument. Generally, it is unnecessary for a manager to train disputants for negotiations unless the conflict is serious and long-standing. When there is insufficient time to train disputants in expresser-responder techniques, the mediator may meet separately with each party before negotiations to advise them to argue the issues and avoid reference to personality traits. The manager should point out that much information is communicated through facial expression, gesture, posture, and body movement.

Managers use one of four methods to resolve conflict: forcing, problem solving, compromise, and avoidance. The most common of these are forcing and problem solving (Phillips and Cheston, 1979). These researchers claim that a manager should use the forcing technique in a continuing conflict, when disputants are of unequal status and have conflicting values. Problem-solving technique should be used when disputants are of equal status, have no previous history of conflict, and conflict is caused by communication difficulties.

Blake and Mouton (1984) suggest that there are two methods for resolving conflict between groups: the interpersonal facilitator approach and the interface conflict-solving approach. In the interpersonal facilitator approach, a neutral third party acts as a bridge, carrying messages and proposals from one side to the other, to clarify elements of agreement and disagreement

as a preparation for conflict resolution. In the interface conflict solving approach, a neutral third party guides disputing groups through a series of steps where the groups deal with one another directly to work out a new basis for relationship. Blake and Mouton claim that the interpersonal facilitator approach should be used when personal chemistry blocks direct discussion between the groups, the parties face a close deadline, and some resolution is needed to prevent total system breakdown. The interface conflict-solving approach should be used when the problem is embedded in the groups' cultures, there is time for detailed discussion, and members of both groups want to rise above present problems to improve future relationships.

Jandt (1987) suggests that agency leaders manage conflict by converting single-issue conflict to multiple-issue conflict. In single-issue conflict, disputants define themselves on opposite sides of a single issue, so that "win-lose" resolution is likely. In a multiple-issue conflict, it is possible for each disputant to win on some issues while losing on others, so that a "win-win" solution is possible.

Confrontation

Confrontation is a tactic that is increasingly used in conflict negotiations. In confrontation the issues that divide disputants are approached directly. Each party expresses personal experiences, observations, feelings, and intentions in a forthright manner, avoiding expressions of anger or blame. Confrontation is used to illuminate a conflict situation when misunderstandings arise from manipulation or deceit by one or both parties. Unfortunately, nurses are socialized to be devious, nondirect, and self-effacing in relating to authority figures. Consequently, nurses are uncomfortable about using confrontational tactics. Confrontation is most successful in managing conflict when disputants focus on one issue at a time (Alinsky, 1971). When disputants are divided on more than one issue, several meetings should be held, and each

meeting devoted to resolving a single topic (Whitney, 1986).

The confrontation method of conflict management consists of three stages. In the first stage, disputants make direct assault on the underlying problem issue, stating their positions in simple, concrete terms, to demonstrate the polarity of their positions and their strength of feeling (Wilson, 1986). During the second stage, each participant argues the importance and validity of her or his position and should search for points of agreement in order to mend relationships that were damaged during conflict. In stage three disputants concentrate on strengthening new understandings and new aspects of the relationship to consolidate gains made through confrontation.

OUTCOMES OF INTERVENTION

A manager's intervention in employees' conflict may have several outcomes. If each disputant clings tenaciously to his or her position, the manager should resolve disagreement through authoritative decision making. The manager's organizational status and authority enable her or him to halt hostilities quickly by fiat. However, disputants cannot acquire conflict-management skill under these circumstances.

After each party has presented arguments, if one party acquiesces to the other's demands, conflict has been resolved through conversation with concession. There is a tendency for the disputant who concedes to become alienated and withdraw from further interaction.

After each party has presented arguments, if each party concedes some demands, a compromise solution can usually be worked out. As neither party achieves her or his objectives through this method, compromise resolution of conflict is not much more satisfactory than that reached through managerial edict.

An integrated solution is the preferred type of conflict resolution (Follett, 1940). With an integrated solution, the desires of both disputants are satisfied by creating a hitherto un-

imagined solution that encompasses the objectives of both. To achieve an integrated solution, the mediator must ensure that disputants' thinking is not confined to the antithetical solution possibilities that the two have been arguing about.

If disputants are inexperienced in mediation, they will probably have unrealistic expectations for the outcomes of negotiation. Each may expect the other to abandon personal bias when presented with factual evidence to the contrary. Each may expect the other to forget past irritations when reasons for hostile behaviors are explained. Each may expect the disputants' former relationship to be resumed unchanged after conflict is resolved. To manage conflict satisfactorily, the manager should counsel participants about what to expect during each phase of negotiation, what solutions are possible, and what long-range consequences of conflict are likely.

If the manager or disputants are supposed to perform certain actions following negotiations, the manager should follow up to ensure that prescribed actions are taken and results are communicated to all parties. After negotiations the manager may meet two or three times with disputants to demonstrate continuing interest in their welfare and facilitate their continuing communication.

If repeated negotiations are unsuccessful in resolving serious employee conflict, the manager should separate the parties by assigning them to different units or terminating the less valuable worker. The steps of progressive discipline must be followed when firing a worker for failing to cooperate with coworkers. The manager must inform the employee that his or her conflict behavior is unacceptable through informal talks, verbal and written reprimands, and suspension. The manager must provide corrective instruction and counseling to the employee at each step in the disciplinary process before the employee can be fired for unsatisfactory interpersonal relationships.

RESEARCH BRIEF

Nurses' Conflict Management Style

Theory: Thomas-Kilman two-dimensional model of conflict management.

Purpose: Determine the conflict-management style of staff nurses and nurse managers who work in hospitals

Sample: One hundred forty-five female staff nurses and 82 female nurse managers working full-time on general medical surgical units of eight West Coast hospitals.

Method: Thomas-Kilman Measure of Differences Exercise, containing 30 pairs of forced-choice statements describing usual behavior in conflict situations, was distributed to nurses along with salary checks. The questionnaire return rate was 38.5%. Responses were scored and tabulated to yield a subscore for five conflict-management styles: accommodating (unassertive, cooperative); avoiding (unassertive, uncooperative); collaborating (assertive, cooperating); competing (assertive, uncooperative); compromising (between assertive and cooperative).

Results: For both staff nurses and managers, the

most common conflict style was avoidance. Managers used compromising almost as frequently as avoidance. For both staff nurses and managers, the least common conflict style was competing.

Application: The low questionnaire return rate makes it difficult to generalize findings to other settings. However, if a majority of nurses choose avoidance and shun competition in conflict situations, they cannot effectively advocate for patients' interests against bureaucratic pressures. A collaborative approach produces more win-win solutions than avoidance, competition, or accommodation and should therefore be used by nurse managers who are responsible for leading teams of multidisciplinary professionals. Agency executives could improve nurses' handling of work-related disputes by providing in-service programs where nurses observe, discuss, and practice various conflict-management techniques with coaching by a management or group dynamics expert.

Source: Cavanagh, S. The conflict management style of staff nurses and nurse managers. *Journal of Advanced Nursing* 16:1254-1260, 1991

SUMMARY

Conflict is inevitable in situations where persons with differing interests, motivations, abilities, and temperaments must cooperate to complete a complex task. In a health agency, conflict occurs between nurses, among members of different disciplines, between caregivers and patients, between caregivers and families, and among caregivers, managers, and administrators. Some amount of disagreement is desirable among coworkers. When managed effectively, conflict can lead to high-quality group decisions and improved agency functioning. When handled ineffectively, conflict can demoralize em-

ployees, impair work performance, and lower agency productivity. The nurse manager should acquire an ability to diagnose different types of conflict and different stages in conflict development. The manager should acquire skills in negotiating and confrontational methods of conflict resolution to deescalate or escalate conflict when either action is needed to promote agency programs and services.

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VI

CONTROLLING

Computer Information Systems

We learn from our environment; scanning it constantly for models to emulate. These models are not only other people. They are, increasingly, machines.

ALVIN TOFFLER

OBJECTIVES

After reading this chapter, you should be able to:

1. Describe three nursing care activities that can be facilitated through computerization.
2. List three nursing management functions that can be facilitated through computerization.
3. Indicate three types of information that a vice-president of nursing should give a vendor from whom she or he wishes to purchase an automated nursing information system.
4. List three types of information that a vice-president of nursing should obtain from the vendor before purchasing the system.

As health care delivery becomes more complex and caregivers become more dependent on each other for information about a patient's condition and response to treatment, each manager requires a larger information base for controlling nursing operations. Patient and personnel information can be transmitted more

efficiently through a computerized information system than through a conversational or written system. Information can be more reliably and efficiently transmitted through an integrated computerized system than through multiple, unlinked computerized systems. The purpose of an integrated health information system is to bring

relevant patient data in usable form to the right person at the right time to solve patient care problems.

The modern nurse manager must communicate with machines as well as with people. Computers and other business machines are increasingly used in hospitals, clinics, nursing homes, HMOs, and home care agencies to improve work efficiency, decrease errors, and reduce costs.

A computer is an electronic machine that accepts data, organizes and processes them according to a set of instructions, then stores and communicates processed data for use by humans or other machines. In caring for patients, nurses gather, use, and generate a large volume of data that must be shared with contemporary caregivers or stored for later use. To provide effective patient care, nurse caregivers and managers must understand computer operations well enough to obtain, transmit, and store significant patient information. Knowledge of systems theory and computer function is also necessary to execute such nursing management activities as budgeting, staffing, directing personnel, educating staff members, evaluating patient care, and controlling nursing practice.

SYSTEMS THEORY

A system is a complex of interacting elements. Each element of a system can be considered a subsystem of the larger system. Each system consists of five components: input, processing, output, control, and feedback loops (Fig. 27-1).

Systems theory provides a model for computer operation. Systems theory also enables a

nurse manager to identify the elements of nursing department function and clarify the manner in which these elements interact with one another and with factors outside the system. An important aspect of systems analysis is an investigation of the interface of one system with another as they interact as parts of a larger system. In a health agency the nursing, medical, dietary, pharmacy, laboratory, x-ray, physiotherapy/occupational therapy, housekeeping, and financial subsystems must interact smoothly to provide high-quality, economical patient care. A major aspect of subsystem interaction is intersubsystem information transmission. Nursing uses information generated by the medical, dietary, laboratory, and therapy subsystems and vice versa. Medicine uses information generated by the nursing, dietary, laboratory, x-ray, and therapy subsystems and vice versa. Agency executives use information generated by all agency subsystems.

COMPUTER SYSTEMS

Nurses are knowledge workers. As such, they use and generate large volumes of information while fulfilling employment responsibilities. Studies show that as much as 40 percent of a nurse's time is spent in some form of communication or information handling (Vachon, 1983). Data are facts and figures from which conclusions can be drawn. Data do not constitute information until they are manipulated and organized into a form that conveys meaning to a decision maker (Schmitz, 1989). Computers can rapidly and accurately manipulate large quantities of data accumulated by and useful to nurses at all levels of organization hierarchy.

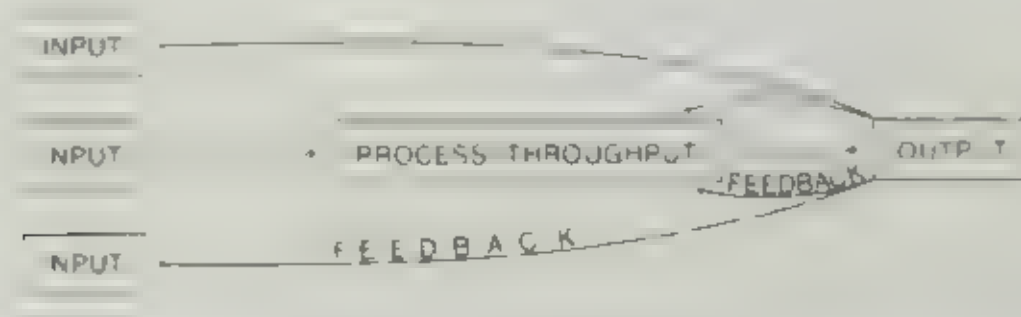


Figure 27-1 System components.

In many nursing organizations computerized systems are used to collect, transmit, analyze, and report patient-related, employee-related, and process-related information among managers and caregivers. Management applications for computerized information systems include statistical projections of nursing workload; summary of patient-classification data; projection of personnel recruitment, hiring, and scheduling needs; nursing resource use; supply use; budgeting planning and monitoring; payroll records; and analysis of nursing care quality (Johantgen and Parrinello, 1987; Schank and Doney, 1987).

Nursing practice applications for computerized information systems include bedside measurement of heart rate, blood pressure, blood gases, and intracranial pressure; computer-controlled fluid, nutrient, and drug infusions; computer-generated medicine-administration records; automated nursing care plans; automated nursing notes; and automated monitoring of quality indicators (Adams, 1989; Cox et al., 1987; Grobe, 1984; Larrabee et al., 1992). In intensive care units, where the average patient requires 1,000 nursing observations in a 24-hour period, and in emergency and operating rooms, where a patient may require measurement of 20 physiological variables every 15 minutes (Saba and McCormick, 1986), nurses use a variety of computerized devices for monitoring patient welfare. Nurses in general care units use computerized rate and volume recorder-controllers to monitor and regulate fluid and nutrient therapy for patients of all types.

Many health care agencies use computerized patient records in which physicians enter physical findings, diagnoses, orders, and progress notes and nurses enter observations, nursing diagnoses, care objectives, care interventions, and treatment results by means of a videomatrix terminal (cathode ray tube, light pen, and keyboard) located in the unit office (Schodt et al., 1987). A few hospitals have installed computerized input-output devices at each patient's bedside. Benefits of bedside computer systems

include decreased documentation time; improved accuracy of care documentation; accessibility of patient data at the bedside for all caregivers; speedier implementation of physician's treatment orders; elimination of errors due to illegible handwritten orders; decreased time spent in graphing vital signs and input and output data; increased patient contributions to medical record; and efficient retrieval of medical record information for care-quality, infection-control, and risk-management purposes (Soon-tit, 1987). In three hospitals where bedside computer terminals were installed on a trial basis, nurses adapted more readily to use of bedside terminals than physicians. When the purpose for the bedside terminal was explained to patients on admission, neither patients nor their visitors paid much attention to the device. Favorable effects of bedside computers in these agencies were decreased time spent in documenting nursing care (a saving of 20–30 minutes per nurse per shift); fewer charting omissions; and more up-to-date patient care plans. The researchers calculated that financial outlay for additional computers and computer cabling was recovered (through savings in overtime and registry costs) within 24 months (Herring and Rochman, 1990).

A comprehensive nursing information system (NIS) should permit automated information processing of all phases of the nursing process:

MEMO CAPSULE

Advantage of Bedside Computers

- Decreased time spent in documentation
- Increased accuracy in documenting care measures
- Greater accessibility of patient information to all caregivers
- Faster implementation of physician's orders
- Efficient retrieval of medical record information for quality monitoring
- More up-to-date patient care plans

assessment, diagnosis, planning, implementation, evaluation (Mowry and Korpman, 1986). In some computerized nursing systems, patients enter information about their health history (Fairless, 1986). In some NISs, a master list of nursing diagnoses is stored in computer memory. This list is compared with information about the patient's health history and physical assessment that is input by the nurse. When data matches from the two sources are displayed on the video screen, the nurse selects diagnoses that reflect the patient's actual and potential health needs. For each selected nursing diagnosis, the computer presents a list of possible nursing interventions. The nurse selects the interventions deemed appropriate, given the patient's age, condition, and life circumstances. The computer program organizes selected nursing interventions into a care plan to be followed by nursing personnel on all shifts. Paper copies of the computer-generated care plan are distributed to the patient, family members, and other caregivers, as indicated (Fairless, 1986).

Automation of quality monitoring studies requires that process and outcome standards and critical problem indicators for targeted diagnoses, problems, or incidents be stored in computer memory, together with criteria for selecting patient records or other records (such as infection-control, cardiopulmonary resuscitation, and patient fall incident reports) to be analyzed. Standards, with relevant measurement criteria, are cross-referenced alphabetically, by relevant clinical specialty, and relevant medical and nursing diagnoses (Edmunds, 1983). For instance, the standard "absence of skin pressure injury" or the critical indicator "abrasion or erythema over skin pressure point" would be monitored for all patients with cerebrovascular accident, spinal cord injury, urinary incontinence, malnutrition, obesity, dementia, coma, and other diagnoses of interest. When nurses in a particular unit or service decide to audit care quality for patients with a specific diagnosis, the appropriate process or outcome standards or criteria are specified, the appropriate patient

records are called up, and findings from individual patient records are combined, summarized, and analyzed to determine the percentage of the sample that display each critical indicator or meet each standard or criterion.

A health agency may have several automated information systems. A management information system (MIS) processes information to support management functions and as such receives data from and supplies data to several departments: nursing, medical, laboratory, pharmacy, dietary, social work. The principal purpose of a MIS is the timely flow of information to executives, middle managers, and service employees, to be used for policy decisions by executives, operating decisions by managers, and patient care decisions by caregivers.

• MEMO CAPSULE •

Computerized Agency Information Systems

- Patient's medical record
- Clinical laboratory test orders and reports
- X-ray orders and reports
- Pharmacy orders and medication-administration records
- Nurse staffing and scheduling system
- Nursing care standards and quality-monitoring system
- Nursing information system: Objectives, policies, procedures
- Management information system: Budgets, accounts, census information
- Supply inventory and ordering system
- Computerized GANTT chart for implementing a new service program
- Employee orientation, in-service, and staff-development information

The 386 and 486 series of microcomputers have sufficient power, versatility, and memory capacity to run several business software programs that are well suited to support the nursing

management function. The most commonly used business software tools are (1) word processing; (2) spread sheets; and (3) data-management systems. A suitable software package of each type can be purchased for \$200 to \$300. Currently, the combined price for a personal computer system and a set of basic business software programs would be about \$3,000 (Tamarisk, 1990). A nurse manager could use the word processing software to prepare business letters to vendors, memos to personnel, nursing procedures, and reports of unit functions and special projects. The spread sheet software would be useful in preparing staff schedules, assembling patient acuity reports, and calculating nursing costs for several levels of service in a budgetary decision package.

The data base-management software would have multiple uses: forecasting personnel use; tracking care outcomes for different groups of patients; maintaining and updating equipment inventories; tracking continuing education needs for different worker categories; tracking and monitoring recruitment activities; and preparing staffing profiles for nursing units and divisions (Garre, 1990; Johantgen and Parrinello, 1987; Schank and Doney, 1987; Tamarisk, 1990). A computerized data base-management system is an electronic version of a manual filing system. The data-management system contains the electronic equivalent of a set of index cards. Each card details information about several characteristics of a single subject (person, item, or event). A personnel card might include information about a specific employee's age; sex; marital status; highest educational attainment; previous and present job titles; dates of promotion; date of hire; continuing education programs attended; present and past committee service; position on the career ladder; certification status; academic credits earned since last degree, and so on. A patient card might indicate such information as name; patient number; admission date; medical and nursing diagnoses; physical examination findings; laboratory test results; date and findings of diagnostic tests; date

and outcomes of surgical procedures; specific treatments; patient classification and or level of acuity on each day of inpatient care; discharge diagnosis and date; referrals made for followup care, and so on. A data-management program permits a manager to sort, rearrange, select, and sequence data from multiple cards so as to abstract information of current interest and calculate occurrence rates of significant events.

There are also business software programs for project management that enable a nurse executive or manager to customize a PERT (Program Evaluation and Review Technique) chart or GANTT chart to display the necessary sequence, timing, and linkage of various aspects of a complex, multidisciplinary undertaking. The advantage of computerized PERT and GANTT charts over manually prepared models is the fact that multiple flow diagrams and timelines can be designed to reveal most optimistic, most likely, and most pessimistic time predictions for project completion, and timelines can be quickly altered to accommodate unforeseen problems encountered during project implementation (Mills et al., 1989).

A hospital information system (HIS) processes information about patient care services. The principal purpose of a HIS is timely transmission of patient-related information to nursing, medical, laboratory, x-ray, dietary, and administrative personnel, to coordinate efforts of the multidisciplinary care team.

An important segment of the health agency's MIS is the module used for human resource management. Current efforts to integrate the personnel and payroll systems of health agencies—and the offering of cafeteria-style benefits to employees—have greatly increased the complexity of personnel recordkeeping (Knapp, 1990). Computerization of human resource records have increased the speed and accuracy of information handling relative to the health agency's most valuable asset. A computerized NIS is often a subsystem of a multidisciplinary HIS.

Sometimes a computerized HIS fails to pro-

duce desired results, such as improved care quality and lowered costs, because the system was improperly designed. When a decision is made to computerize information systems in a health agency, a planning committee should be created to establish system goals and to schedule various phases of total system implementation. Nursing administrators and staff nurses should be represented on the planning committee. Nurse administrators will be major users of such management information as patient census; patient acuity; budget account totals and variances; infection-control summaries; and quality-improvement reports. Staff nurses will be major users of such patient information as medical diagnoses; nursing diagnoses; nursing standards; nursing care plans; treatment orders; laboratory test results; progress notes; and quality-improvement criteria. It is not uncommon for the nursing department to be the largest user of the HIS (Schodt et al., 1987).

In preparing for a computerized NIS, MIS, or HIS, nurse members of the planning committee should review all of the agency's manual systems for information recording and transmission to determine what types of data are being recorded, used, and generated by and for nursing personnel. Analysis of data sources and uses will suggest the forms in which needed data should be recorded and displayed by computer input-output devices and which classifications of employees should have access to each type of information.

The cardinal rule of computerization is to "select software first" (Cox et al., 1987). In planning an NIS, managers and staff nurses should first identify their needs for information storage, processing, and retrieval, then select software programs to meet those needs, and, finally, select hardware to operate the selected software programs. However, some health agencies implement automated information systems in modular fashion; first installing an overall MIS, then automating an information system for one after another service department. Under these circumstances, computer hardware will

have been selected and installed by the time nursing department personnel must select software programs to manage nursing information, so that fewer nursing software packages will be usable in the agency.

Few nurses possess computer programming skills. Therefore, most nursing departments purchase commercially available programs to automate the NIS. To select the most effective from available software programs, the vice-president of nursing should request software information from several vendors. The request to each vendor should include information about the nursing department's goals for an automated information system; size and character of the nursing department (number, type, size of nursing units); number, character, and sophistication of system users; other computerized information systems within the agency; and available hardware. Each vendor should be asked for information about sites where the software is being used, costs of system installation and maintenance, and vendor's services during system installation. After reviewing program information from several vendors and identifying the program that is best suited to nursing department needs, NIS planners should make a site visit to an agency where the selected program has been in operation for several months, to observe day-to-day operation of the program in a similar setting. After a particular NIS software package has been selected, managers and staff nurses who are responsible for system implementation should secure help from the vendor's customer service representative to install the program, train nurses in its use, maintain a duplicate manual information system during computer system start-up, and phase out the manual system when the computerized system has become fully functional.

The PERT or a similar device should be used to schedule the sequence of decisions and actions necessary to implement an NIS (Fralic, 1984). Installing a computer information system is a lengthy process that requires participation by employees at all levels of the nursing

hierarchy and has an impact on all nursing subsystems (planning, staffing, care delivery, control). A planning diagram is needed that depicts the total process of NIS installation; necessary sequence of decisions and actions; individual(s) responsible for each implementation phase; time allocated for each phase; and target date for completion. This diagram should be distributed and explained to all managers and employees to be affected by the new system.

A nurse manager who is familiar with flowcharting techniques can help the systems analyst or program designer and the computer programmer to prepare automated nursing and management report forms.

A flowchart is a diagrammatical representation of a process. It consists of lines and boxes positioned and interconnected in a manner that describes the sequence of decisions and actions needed to complete a complex process. To prepare a flowchart for a selected nursing program, project or procedure, the manager should break the process into three components: (1) decisions to be made; (2) alternative courses of action; and (3) tasks to be performed.

Certain conventions are observed in depicting the various activities and actions in a flowchart. First, each action step in the process is listed separately in chronological order. Second, arrows are used to demonstrate the sequence of actions in the process.

Third, each decision point calls for bifurcation of activity flow. Events should proceed in one direction if a "yes" decision is reached; in another direction if a "no" decision is reached.

Fourth, feedback loops are represented by reverse-flow side chains that exit the main process at a decision point, run counter to direction of main process events, and reenter the main process at a point proximal to the point of exit.

Using these symbols and conventions makes it possible to flowchart the procedure for adjusting nurse staffing at change of shift as shown in Figure 27-2.

DISADVANTAGES OF COMPUTERIZED INFORMATION SYSTEMS

The opportunity for multiple site access to sensitive information contained in an agency's computerized MIS, HIS, or NIS creates a risk that confidential patient or employee information will be accidentally or intentionally accessed by persons with no right to the information. In a system without adequate user restrictions and security precautions, information about a patient's use of illicit substances, treatment for substance abuse, history of psychiatric illness, or infection with a sexually transmitted disease could be inadvertently communicated to health workers with no responsibility for the patient's care. Information about an employee's health status, academic record, performance appraisals, previous discipline, and marital circumstances could be inadvertently communicated to peer employees, managers of other agency divisions, and specialists who have no responsibility for assigning, supervising, counseling, or evaluating the employee. Clearly, careful thought should be given to deciding which employee classifications are to be given access to each category of computer-banked information.

Best and Weinstein (1991) caution that the recognized strengths of computerized systems (speed, accuracy, objectivity) have created as-yet-unrecognized psychological problems for work force members. These experts claim that computers have changed the rhythm of the workplace, speeding the pace of work processes and spiraling expectations for worker productivity. In addition, computers have set a misleading example of fast, apparently clear-cut and error-free decision making. Consequently, managers have come to expect the same perfection of themselves and subordinates, despite the confusing, chaotic, contradictory information on which they must base daily operating decisions.

Some experts feel that computers are creating a two-class society: One class of people who tell computers what to do, and a second class who

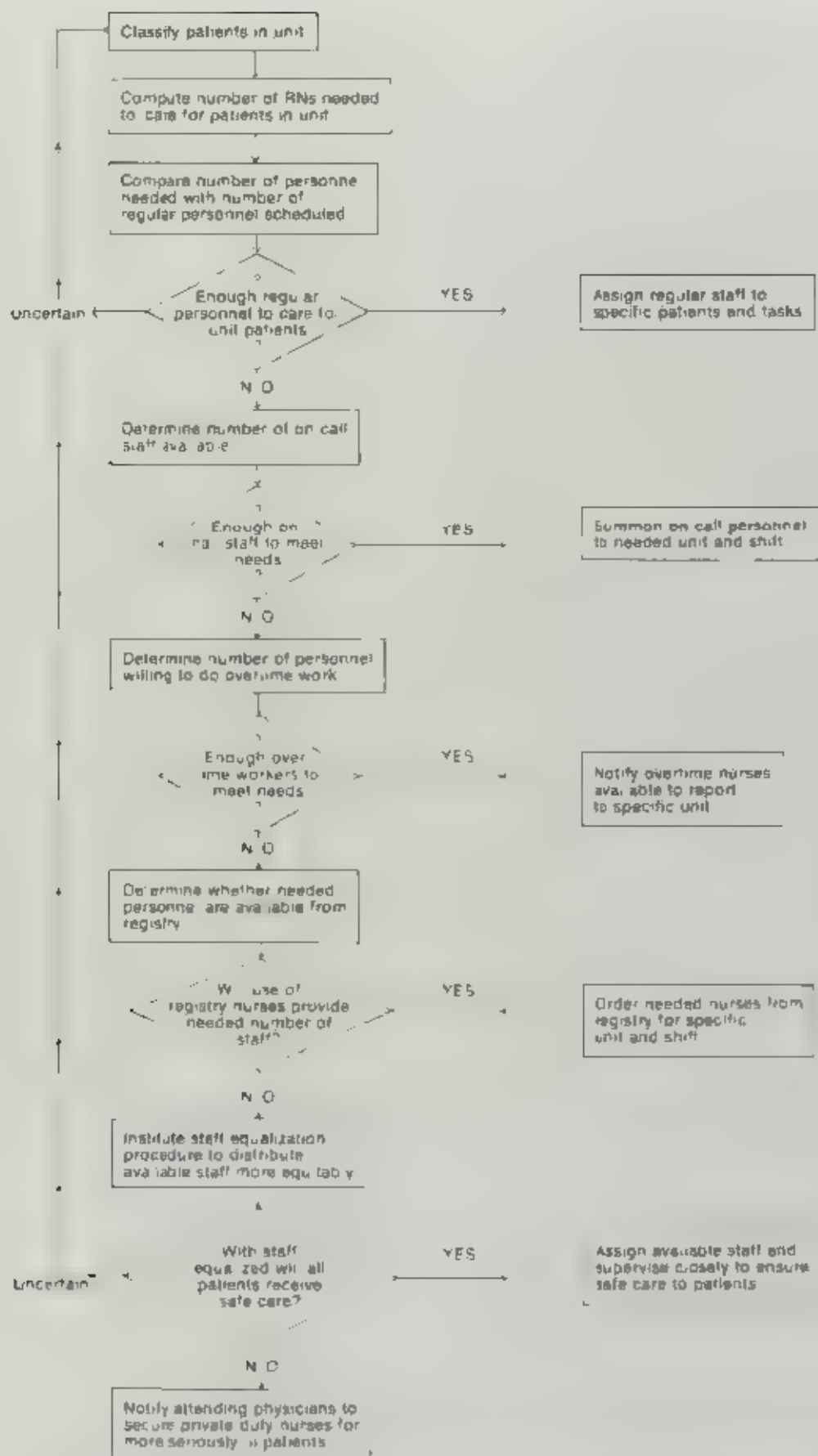


Figure 27-2 Flowchart: Procedure for adjusting nurse staffing at each change of shift in a primary nursing unit.

are told what to do by computers. Another ominous effect of increasing computerization is the fact that people dislike being interrupted while working on a terminal. For some, the efficiency and predictability of computer response makes the inefficiency and uncertainty of human interaction increasingly objectionable. If persons replace disappointing human interactions with machine interactions (like E-mail), they may begin to relate to others as inanimate objects and secondary, less valuable sources of information. These authors recommend that managers offset the negative consequences of computerization by championing the superiority of human cognition for selected creative projects and use computer systems to make work schedules and processes more flexible—which may encourage more frequent and satisfactory human socialization (Best and Weinstein, 1991).

MEMO CAPSULE

Disadvantages of Computerized Information Systems

- Difficult to maintain confidentiality of patient information
- Increased expectations of worker productivity
- Growing impatience with staff members' memory and decisional shortcomings
- Increasing impersonality of employee interactions
- Segmentation of work force into computer "masters" and computer "slaves"

ARTIFICIAL INTELLIGENCE APPLICATIONS

Computer technology has made possible the field of nursing informatics and led to the development of nursing expert systems. Nursing informatics is the field of learning that uses computer science, information science, cognitive psychology, and nursing science to process the data, information, and knowledge needed for

nursing practice (Graves and Corcoran, 1989). Blum (1986) differentiates between data, information, and knowledge in the following manner. Data are discrete facts, without interpretation. Information consists of data that have been organized and interpreted. Knowledge is information that has been synthesized so as to clarify and formulate interrelationships.

An automated decision-making system is a computer program that creates a model of a reality-based problem, analyzes problem variables, weighs risk and uncertainty, selects a course of action to meet a specific objective, and implements or orders implementation of the selected action (Brennan and McHugh, 1988). Computerized decision-making systems can improve efficiency and quality in highly mechanized enterprises, such as manufacturing or traffic control. However, computerized decision *support* systems are better suited for nursing practice because of marked variation in patients' needs and rapidly changing conditions.

A computerized decision *support* system calls for collaboration between computer and health professional. The computer presents a template, or model on which the nurse structures the decision problem. The nurse contributes assessment information about problem variables included in the template or model. The computer analyzes problem characteristics, presents the nurse with decision alternatives, and explains the advantages and disadvantages of each alternative. The nurse selects the best decision from several offered by the computer. A computerized decision support system is referred to as an expert system or information system.

An understanding of the human expert is basic to an understanding of an expert system. An expert is a specialist who has deep and extensive knowledge of a particular field. The human expert acquires extensive knowledge through a combination of formal learning, informal learning, and experience. The knowledge of a human expert is useful to less expert, that is, less educated, less experienced, less able coworkers. In every field, experts are scarce, in great demand,

and overworked. For example, it is impossible for a single nurse specialist to provide information and advice to all staff nurses, managers, and other health professionals who need it. Fortunately, the knowledge of a nurse specialist can be packaged as an expert system, in which form it can be distributed widely throughout an entire health agency and beyond.

An expert system is a computer program that uses artificial (machine) intelligence to make logical decisions on the basis of input data (Madsen et al., 1991). Thus, an expert system executes a specialized and difficult task that is usually performed by a human expert. The system mimics the behavior of a human expert by organizing domain knowledge into chunks, each of which contains a set of facts and heuristic rules for manipulating those facts. Heuristics are rules of thumb that have been developed through experience to solve practical problems.

The typical expert system consists of 4 parts: (1) knowledge base; (2) inference engine; (3) knowledge-acquisition interface; and (4) user interface. The knowledge base is the specific knowledge about content and processes relevant to the domain. The inference engine contains rules of inference used to reason from the knowledge base and user-input information to a logical conclusion. The knowledge-acquisition interface enables an expert to express knowledge in a form that can be incorporated into the knowledge base. The user interface helps a user to "consult" the system by questioning the user for key problem information, displaying program conclusions, and explaining system reasoning (Fraser and Turney, 1990).

The knowledge in an expert system, like that of a human expert, is of two types; (1) content knowledge, which is factual and static; and (2) procedural knowledge, which is strategic and dynamic. Content knowledge consists of concepts and their interrelationships and answers the question "What?" Procedural knowledge consists of operations to be performed during problem solution, and answers the question

"How?" Content and procedural knowledge can be represented in three ways: (1) as a temporal string, indicating item order; (2) as heuristic rules that reflect meaning of the domain; (3) as a spatial image or schema, consisting of multiple "frames." Most expert systems are rule based. A rule-based system contains a set of "if/then" rules. If the rule's premise (conditions described in "if" clause) is true, the conclusion (condition described in "then" clause) is executed (Bowerman and Glover, 1988).

In a rule-based expert system, inferencing may follow a forward-chaining (data-driven) course or a backward-chaining (goal-driven) course. With forward chaining, the system reasons from input data, such as symptoms or demographic information, to a final conclusion. With backward chaining, the system reasons backward from a conclusion, such as diagnosis or goal, to determine whether the facts needed to reach that conclusion are present. Forward-chaining systems are faster. However, backward-chaining systems are more efficient, because the answer to a single question may rule out a conclusion, whereas a forward-chaining system requires that several questions be answered (Benfer et al., 1991). Backward-chaining systems also reason more like a human, in first ruling out obviously incorrect conclusions, then working slowly through preceding facts to verify or refute a conclusion. For example, on meeting an elderly, dyspneic patient, a nurse might suspect congestive heart failure; then check heart and lung sounds, pulse rate and volume, respiratory rate, and evidence of dependent edema in order to confirm or disconfirm the diagnosis. Sometimes, expert system rules include a probability factor that indicates the degree of confidence associated with the outcome of each rule application (Benfer et al., 1991).

In an expert system where knowledge is represented as a spatial structure, each "frame" contains several slots, and each slot contains a fact or procedure that links that frame to others. The schema organizes frames into hierarchies.

Inferences are derived from inheritance of properties within the frame hierarchy and procedures that are triggered off when key slots are filled with data (Bowerman and Glover, 1988).

The inference engine or rule interpreter makes judgments by searching the knowledge base for patterns that match the configuration of user-input information. The inference engine takes facts obtained from the user and checks them against "if/then" rules in the knowledge base. If all conditions specified by a rule are satisfied, the rule "fires." When a rule fires, the conclusion drawn is stored in the system's data base, and the inference engine checks it for matches with the system rules.

The user interface is a set of programs that interlink knowledge base and inference engine in a manner that facilitates two-way communication with the user. The user interface gathers information by (1) asking questions to which the user types in answers; or (2) providing menus containing multiple-choice questions from which the user selects the correct response (Frenzel, 1987). If the inference engine cannot reach a decision because key information is lacking, the system queries the user for needed information. If the user enters the requested information, inferencing continues, until the final decision is displayed on the monitor. With some expert systems, the user who is asked for additional data may inquire *why* that information is needed to solve the problem. With some systems, the user may ask *how* the final decision was reached, and the system will explain the logic of the inferencing process (Romiszowski, 1991).

Several expert systems have been developed for use in business and medicine. X-CON is an expert system used by Digital Equipment Corporation to tailor computer configurations to specific needs of individual customers. Authorizer's Assistant is an expert system used by American Express credit authorizers to determine when to extend credit limits for selected cardholders. DENDRAL is an expert system used to determine the structure of unknown

chemical compounds. ACE is an expert system used by American Telephone and Telegraph to troubleshoot phone networks. TATR is an expert system used by United States Air Force officers to target enemy installations for attack. MYCIN is an expert system used by physicians to diagnose septicemia. CASNET/GLAUCOMA is an expert system used to diagnose and treat glaucoma. STRABDIAG is an expert system used to diagnose strabismus and related disorders. Nutritional Advisor is an expert system used to diagnose and treat nutritional needs of critically ill patients (Bowerman and Glover, 1988; Fraser and Turney, 1990; Madsen et al., 1991).

Few nursing expert systems have been developed. Florence is a case-based expert system for identifying nursing diagnoses in a patient who is hospitalized for treatment of an acute medical condition (Bradburn et al., 1993). This system solves new problems by adapting solutions that were successful in solving former problems. Florence's knowledge base contains descriptions of "standard cases" that a nurse would be likely to encounter in a medical unit. The description of each standard case includes (1) medical diagnosis or reason for admission; (2) common features (signs and symptoms); (3) typical nursing diagnoses; and (4) relevant concepts. For this system, a concept is defined as a discrete factor that contributes to a person's physical, social, or psychological health. The components of the knowledge base are interlinked: A case is typified by a medical diagnosis; a diagnosis entails expected features; each feature is linked to the concept for which it reflects deviation from normalcy.

In consulting Florence, the staff nurse inputs the reason(s) for a patient's admission and signs and symptoms found on patient assessment. The most relevant standard case (based on reason for admission) is retrieved from the knowledge base and a list of expected nursing diagnoses is displayed. The user confirms or disconfirms each nursing diagnosis by comparing its expected features with the features presented by

the patient. Florence refers any unexpected features (those not associated with any confirmed diagnosis) to the concept level of the knowledge base. A second attempt is made to relate each feature to an already confirmed or an additional diagnosis. When case consultation is completed, the user's "case" is classified as an example of a standard case, an exception to a standard case, or unclassifiable.

A case is classified as exception to a standard case if the majority of nursing diagnoses match those of the standard case, but a few expected diagnoses are lacking or a few unexpected diagnoses are present. Florence queries the user to learn reasons for these differences and stores the answers in the knowledge base as a standard case variant. Thus, Florence learns by keeping records of salient new cases and using this information to update its library of standard cases. System developers found it more time-consuming to develop the case-based Florence system than a more traditional, rule-based system. However, the additional cost seemed warranted, because Florence can be used as a staff-development tool, as well as a job guide. A case-based system is superior to a rule-based system in teaching novices to reason from signs and symptoms to nursing diagnoses.

Some expert systems that were developed for other disciplines can be used to improve nursing practice. The incidence of multiple simultaneous psychiatric disorders is fairly high, and patients with minor psychiatric ailments often present to a general practitioner with somatic complaints. Johri and Guha (1991) developed an expert system for general practitioners to use in diagnosing psychiatric disorders. This system prompts the user regarding "facts to be observed" and "questions to be asked" of a patient in order to elicit the signs and symptoms needed for correct diagnosis. The system's knowledge base is a matrix organization of disease and manifestation complexes, in which each manifestation is weighted to show its significance in the corresponding disease. The Johri-Guha expert system is easy to use; it takes three minutes to enter

case information and obtain a list of possible syndromes; it can be run on an IBM-compatible personal computer; and it was 80 percent accurate in trial use. When the system is perfected, it will be a valuable resource for rural nurse practitioners, who must diagnose and refer any patient with psychiatric illness to a distant specialist.

Psychtopix is an expert system that guides a physician from an on-line psychiatric consultation report to literature citations about concepts included in the report (Powsner and Miller, 1992). On reading a psychiatrist's computerized consultation report, the patient's primary physician can initiate an on-line Medline search for references to clarify issues raised by the consultant. This system operates as follows. The consultant's report is transcribed by a secretary and entered into the patient's computerized record within 24 hours. The consult record contains the following information: (1) patient demographics; (2) reason for consultation request; and (3) consultant's report, including patient history, family history, laboratory results, current medicines, results of mental status examination, overall impressions, and recommendations for treatment. When activated by the primary physician, Psychtopix scans the consultant's report. The system notes patient's age and sex, laboratory test results and mental status exam scores, and searches for key words and phrases that trigger associated topics. When scanning is completed, the system activates pertinent topics and presents them to the primary physician for possible searching. When the physician selects a topic for retrieval, a Medline/Grateful-Med search is initiated. Retrieved references are presented to the physician, who indicates whether any should be printed. Psychtopix takes one minute on an IBM PC to scan the consultant's report and present a list of pertinent topics; then four to five minutes to search for Medline references and decide which to print. The Medline data base includes many nursing journals as well as medical journals. Therefore, this system could assist nurse gen-

ralists and physician generalists to obtain background information about topics in the consultant's report.

Nutritional Advisor is an expert system for assessing and treating nutritional problems in critically ill patients (Fraser and Turney, 1990). The knowledge domain for this system is narrow (total parenteral nutrition), which limits the knowledge base to 63 parameters and 68 rules. Knowledge base parameters are measures of the patient's physiological status. Rules for knowledge manipulation are obtained from a nutrition expert and relevant scientific literature. To consult the system, a user inputs the following patient information: sex; age; height; weight; levels of serum albumin; serum glucose; serum triglyceride; blood urea nitrogen; change in BUN during preceding 24 hours; insulin administered; oxygen consumption; carbon dioxide production; respiratory quotient; measured energy expenditure; degree of injury; degree of sepsis; and presence or absence of renal failure.

By applying a series of "if/then" rules, the system recommends daily intake of calories, protein, carbohydrate, and whether or not to use an insulin trial. When data collected retrospectively on 12 patients were analyzed by the Nutrition Advisor and a nutrition expert, there were significant differences in recommended caloric intake for two of the 12 patients, and significant differences in recommended protein intake for two of the 12. These differences resulted from failure of the expert system to account for the type of dialysis used, and too-low disease activation factor for moderate injury. When the system is corrected, it will be a valuable training aid for orienting critical care nurses.

Sarah is an expert system developed by the British Gas Company for training nonhygienists to carry out occupational hygiene assessments (Kirkwood et al., 1991). This system was developed by using an expert system shell with hypertext capability and runs on an IBM-compatible personal computer. Hypertext is an electronic documentation feature that provides a large quantity of background information from

which the user can select the amount of information he wishes to see. Thus, the expert system guides the user through the logical steps of consultation, and the hypertext allows him to browse through additional explanatory materials.

The advice given by Sarah depends on the user's answers to such questions as:

1. Is the activity being evaluated an existing operation or a change in operation?
2. Does the company handbook mention specific hazard associated with this practice?
3. What is the nature of the possible hazard: inhalation, ingestion, skin contact, other?
4. How many workers of what types are exposed?
5. Can the hazardous activity be avoided or the hazardous substance be replaced?
6. Is protective equipment provided and instruction given for its use?

The advice provided by Sarah includes information about methods of preliminary survey, assessment factors to be considered, what to do if policy doesn't specify maximum exposure limits, and how to control exposure. With minimal modifications, Sarah would be useful to occupational health nurses who are responsible for identifying hazardous working conditions for employees.

Patel and Babbs (1992) describe an automated telephone monitoring system for homebound chronically ill that could be converted to an expert system by adding capabilities for diagnostic and treatment reasoning. This system includes a nurse-operated, computerized central station, from which automated phone calls are made to homes of patients with congestive heart failure. When the patient answers, an automated, voice-reproduction system asks a series of prerecorded questions, which are specific to the patient's condition. The patient answers the automated questions using the number key pad on a touch-tone phone. The computer asks such subjective questions as: "Do you have chest

pain?" "Are your feet swelling?" "Do you feel tired?" "Did you take your medicines?" "Are you short of breath?" "Are you dizzy?" "Have you lost your appetite?" "Are you nauseated?" If there is a thermometer, scale, sphygmomanometer, and blood glucose monitor in the home, the computer prompts the patient to record current measures of temperature, weight, blood pressure, and blood glucose by pressing appropriate numbers on the phone keypad.

This system is operated by a nurse, who enters general information about each new patient, reviews patient reports generated from automated calls, and talks directly with any patient who activates the system's "breakout" feature, that is, interrupts a computerized communication to answer a patient's request to speak to a human expert. A weekly summary of automated monitoring information is faxed to the cardiologist, who reviews the updated patient data and determines the need for treatment change. If the system were expanded to solicit additional physiological measures from patients and provide rules for inferring increasing decompensation, a nurse, rather than a physician, could analyze system reports and refer to the cardiologist those patients whose worsening condition necessitates treatment changes.

Raouf and associates (1990) developed the Maintenance Management Expert System (MMES) to assign craftsmen and materials for maintenance operations throughout a hospital or manufacturing organization. This expert system consists of subroutines for work order, material, equipment, personnel, and management of work orders. The system is initialized when a manager enters the following information: (1) work order number; (2) problem definition; (3) estimated worker hours; (4) estimated cost; (5) tools needed; (6) equipment needed; (7) work plan; (8, location; (9) job code (emergency, routine, preventive); (10) craft code (mechanical, electrical, welding, plumbing, carpentering); and (11) materials needed.

The computer interlinks job order information with predetermined work order and pur-

chase order flowcharts, information about craftsman status and equipment location, then orders and schedules men, machines, and material needed for maintenance functions that promote normal plant operations. With minimal adjustment, this expert system could be used to control nursing department maintenance in a clinic, HMO, or hospital.

Computer Simulations

Through computer simulation nurses can create quantitative models for solving complex practice and management problems. A computer simulation is a software package that presents narrative, diagrammatic, and numerical information about a complex situation and enables the user to observe the effects of modifying various situation parameters. Paper and pencil simulations of patient management problems have been used in medical education for some time (Elstein et al., 1978), and more recently in nursing education (Holzemer et al., 1981). By presenting a patient simulation in computerized form, the learner can be given more numerous situation variables, a greater range of values for each variable, and immediate feedback about the effects of variable modification.

Similarly, paper and pencil simulations of management problems have been used for years to train nurses for leadership activities. The familiar in-basket exercise simulates the diverse demands for assessment and intervention that confront managers during daily work. Again, computerized simulation of a management problem enables the learner to consider more numerous components and try out multiple solutions without undertaking the risks associated with trial-and-error problem solving.

Lauri (1992) developed a computer simulation program to assess public health nurses' decision making. System developers constructed two simulations: (1) a home visit to a family with a newborn infant; and (2) a clinic visit by a family with an 18-month old child. Each situation consists of a series of screens containing information and multiple-choice selections.

Running the simulation moves the user through a series of steps. Each step calls for the user to make a choice among alternatives. Each choice leads to the next step in the action-decision path. The simulation begins with a description of the situation. Then, the nurse requests additional information about child and family; prioritizes the child's needs for care and family's needs for education; and indicates which interventions she or he will implement, in what order.

A panel of nurse experts assigned a numerical value (5 = most desirable choice; 1 = least desirable choice) to each alternative of each multiple-choice item. When the user has completed the simulation, the computer calculates the user's score for the total simulation and for the assessment, prioritizing, and implementing modules. For example, trial use of the automated simulation of childcare decision-making revealed that sampled Finnish public health nurses were more effective in assessing client needs and prioritizing needs than in intervening to satisfy needs. The simulation will be expanded, so that the user can indicate both immediate and *future* nursing interventions for the simulated family. With this change, the simulation can evaluate planning a care program and assess a care encounter.

Klafehn and associates (1989) used a computerized simulation model to reallocate hospital beds among medical specialties. For this simulation, the authors developed a mathematical model of the hospital's 15-bed service areas and patient flow through these areas over a three-month period. Model values were obtained from three source documents: admission records, transfer records, and discharge records for June, July, and August of 1986. These data were used to calculate daily admission rates and lengths of stay for patients in each service area.

At time of study, the hospital's bed assignment plan provided 48 surgical beds and 33 orthopedic beds. Using forecasted admission rates and length of stay, 13 computerized simulation runs were made to determine the effects on bed utilization and patient waiting time of

reallocating beds between the two services. Each simulation run reflected the effects of reallocating two additional beds from surgery to orthopedics.

Results of the 13 runs were graphed to show (1) the percentage of surgical and orthopedic beds utilized under each allocation plan; and (2) the number of patients waiting for admission under each allocation plan. The graphs revealed the most balanced bed utilization rates (about 82 percent for both specialties), with a configuration of 38 surgical and 43 orthopedic beds. Computer simulations allowed hospital managers to forecast probable outcomes of different bed-allocation patterns without upsetting personnel through serial trial-and-error changes. In addition, institutional powerbrokers were less resistant to change when shown the quantitative output of the computer simulations.

Wolf and associates (1992) developed a computer simulation program to evaluate the efficacy of various staffing configurations in a cardiac surgery unit. System designers based the simulation on six months of historical data about a number of open-heart and general surgery patients in a surgery intensive care unit (SICU)/post-open-heart unit, the number of admissions and discharges for each shift, and the number of each category of nursing personnel working eight- and 12-hour shifts on each day during the same period.

Earlier studies in the same hospital revealed that each open-heart patient required one dedicated registered nurse for 16 hours postsurgery, after which a 2:1 patient-nurse ratio was adequate. The same study showed that a 2:1 nurse-patient ratio was adequate for general surgery patients.

The computerized simulation compared staffing levels during the six-month period from which historical patient and personnel data were retrieved with what would have been ideal nurse staffing levels for the same number and type of patients. The simulation also calculated quality staffing indexes for each shift by dividing actual staffing level by ideal level. The analysis

revealed that the SICU/open-heart surgery unit had been more severely understaffed on the night shift than the day or evening shifts. Quality staffing indices for 7-3, 3-11, and 11-7 were 69%, 68%, and 33%, respectively. Using information from the first simulation run, system designers simulated an improved staffing configuration for the unit, by determining average difference between actual and ideal staffing for each shift, and adding this number of personnel. On recalculating staffing levels for the new configuration, quality staffing indexes for all three shifts approximated 100 percent.

Computer-Assisted Instruction

Another computer application that can be profitably applied in nursing management and education is intelligent computer-assisted instruction (ICAI). The first, simple teaching programs were a series of sequenced print frames through which a learner progressed to a subsequent frame only after demonstrating understanding of information in the current frame. Early, linear programmed instruction was thought to individualize instruction, because each learner could progress through the lesson at his or her own speed.

Simple, linear instruction programs were replaced by more complex branching programs, in which different learners followed different paths through the lesson, as determined by choices of different alternatives in early program frames. Branched instruction programs were said to individualize instruction, because learners who gave inaccurate response to a particular frame were directed through a correctional program loop to remedy misunderstandings. In time, branched learning programs were computerized to facilitate greater learner interaction with program materials and more varied paths through lesson content.

Now, some computerized learning programs have been made "intelligent," in that they maintain an extensive data base about the individual student's interests, abilities, preferred learning style, and past academic record. The computer

uses this student background information, as well as his or her response to each program frame, to individualize the type and amount of lesson content, the number and placement of visual displays, the frame display time, the frame sequence, the frequency and type of feedback, and the type and timing of evaluation (Yang, 1991). A student's learning needs change rapidly, because different abilities are needed at different stages of a complex task, and because students' ability level changes as they continue to work on a task (Park and Tenyson, 1980). Intelligent computer-assisted instruction continuously assesses the learner's progress and modifies instructional content, method, and speed accordingly.

Intelligent computer-assisted instruction can be used both to educate nursing students and to orient or cross-train experienced nurses (Carr, 1991). Romiszowski (1991) claims that ICAI programs are more complex than expert systems, because the former are a combination of subject matter expert, learning evaluation expert, and expert tutor. The lengthy collaboration of nurse managers and teachers during construction of ICAI systems will help to narrow the nursing service-nursing education gap.

System development

The most difficult aspect of designing an expert system is to extract knowledge from human experts (Diaper, 1989). The working knowledge of an expert is acquired and refined through a three-phase process: (1) cognition, or learning from instruction and observation; (2) association, or practicing what is learned to the point of proficiency; (3) automaticity, or overpractice of learned information and skill, until performance occurs without thinking. The expert uses her or his vast store of experience (phase 2) to interpret new situations in terms of familiar situations. After doing this repeatedly, he develops a series of heuristics, or rules of thumb, that provide shortcuts in decision making. Unfortunately, much expert performance is of the phase-3 variety, that is, action without con-

conscious awareness. The expert is unable to share her or his unconscious knowledge with others, because she or he is unaware of its existence (Thompson et al., 1990; Woolery, 1990).

When building an expert system, most knowledge engineers use face-to-face interviews to "unpack" theoretical and practical knowledge from domain experts. Benfer and associates (1991) claim that ethnoscience methods are superior to interviews as a means for unlocking the expert's unconscious knowledge. They describe how the method of General Sorts helps an expert to exteriorize out-of-awareness knowledge and communicate it to others.

For example, to develop an expert system to guide care of quadriplegic patients, a knowledge engineer might begin by interviewing a rehabilitation clinical nurse specialist about the concepts and categories related to rehabilitation of a patient with high cord injury. The engineer might ask the expert such questions as: "What types of physical problems would the patient experience?" "What types of psychological problems would the patient experience?" "What types of social problems would the patient experience?" Through such questioning, the knowledge engineer would extract dozens of problem-related terms and concepts from the expert's knowledge store. The knowledge engineer would cross-check these terms or concepts by questioning other rehabilitation nurse specialists. When a particular question proved useful as an elicitation tool, it could be modified slightly and used again to further probe the knowledge domain and elicit additional concepts. Each term or concept would be written on an index card and number-coded. The entire pack of cards would be given to the expert, and the knowledge engineer would ask the expert to sort the cards into as many piles as desired, according to any principle whatever. When the pile-sort was completed, the knowledge engineer would record the contents of each pile (by code number) and ask the expert to further subdivide any or all piles, as desired. Terms and concepts included in the second, or subsequent

sorts would be recorded. When the expert could no longer subdivide any piles, the knowledge engineer would lead the expert through the final tree of categories and ask him or her to explain reasons for grouping certain items together and separating others. These reasons for grouping and subdividing concepts would clarify the structure of the expert's knowledge base (including many previously unconscious concepts and principles).

After expert knowledge has been obtained from domain experts, and the structure of the knowledge base is determined by a nursing information specialist, a computer specialist must develop a software program to direct the computer operations needed to input problem information, search the knowledge base, retrieve portions of the knowledge base, integrate and manipulate information from the two sources, and output problem solutions. The programming languages most often used to build expert systems are LISP and Prolog. LISP is an acronym for List Processing. Because most information can be represented as lists of items that can be grouped and sequenced to reflect their interrelationships, LISP is well suited for designing an expert system.

In addition to special programming languages, there are commercially available expert system shells, or software patterns, that enable persons without programming experience to construct a simple expert system (Carr, 1991). Some consulting firms, such as Arthur D. Little, build custom expert systems for business and industry. These large-scale programs may take a year to complete and cost hundreds of thousands of dollars. Using an expert system shell, a nursing information specialist and a computer scientist might construct a small-scale nursing expert system in two to three months for much less (Wilson and Welsh, 1991).

SUMMARY

Communication is a principal activity of the nurse manager. Mainframe, minicomputer, and microcomputer systems are used by first-level,

RESEARCH BRIEF

Using Computers to Evaluate Nursing Documentation

Purpose: Develop an effective, efficient method of evaluating nurses' documentation of care.

Sample: Unspecified number of patient records in an Army Medical Center.

Method: The investigators designed a documentation-assessment tool containing 60 criteria. A programmer converted the tool to a computer program to evaluate nurses' documentation of assessment, planning, implementation, and evaluation, with respect to content and structure. The program reported summarized documentation scores for individual nursing units

and total nursing department.

Findings: System developers were able to collect, process, and report data on nursing documentation in a fraction of the time spent in earlier manual calculations.

Application: Effective management requires ongoing assessment of all aspects of the nursing process. The data needed for this assessment are voluminous. To minimize the time needed to gather, summarize, analyze, and report performance data, managers should computerize as many aspects of quality monitoring as possible.

Source: Granger, C., and Woodling, C. Using computers to evaluate nursing process documentation. *Journal of Nursing Quality Assurance* 1(4): 50-50, 1987.

mid-level, and top-level managers to receive, organize, analyze, transmit, and store the information needed to plan nursing operations, organize nursing personnel, direct nursing activities, and evaluate nursing outcomes. Commercially prepared software programs are available for most of these functions. However, nurse managers should collaborate with the software vendor's customer service representatives to tailor each program to the specific needs of the agency.

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Quality Improvement

Any profession which doesn't monitor itself becomes a technology.

MARIE PHANEUF

OBJECTIVES

After reading this chapter, you should be able to.

1. Write one structure criterion, one process criterion, and one outcome criterion to evaluate nursing care quality for patients with a specific medical or nursing diagnosis.
2. Explain why training nursing personnel to use a quality-monitoring tool increases the reliability of the tool
3. Identify three topics that would be suitable for ongoing quality monitoring in your nursing unit, and explain reasons for selecting each.
4. Perform a concurrent process audit of a selected nursing procedure on your nursing unit.

For the past three generations, American society has accorded the professions of ministry, law, medicine, and nursing considerable authority for self-direction. In exchange for professional autonomy, each profession is expected to monitor members' activities and protect the public interest. With the expansion of health science and the specialization of health professions, controls are needed to ensure that caregivers' knowledge and skills are sufficient to ensure safe, effective patient care.

In the past, the chief means for ensuring nursing care quality were the states' nurse licensure laws, which set qualifications for entry to practice; health agency policies, which controlled the selection, supervision, evaluation, and discipline of nursing personnel; and licensing or accreditation agencies, which regulated health agencies' physical facilities, equipment, and staffing levels. Over the years, efforts to improve nursing care quality have evolved from sporadic, unrelated task audits to systematic efforts to prevent

nursing care problems, to a continuing effort to improve *all* elements of care (Joint Commission on Accreditation of Healthcare Organizations, 1992a).

DEMAND FOR QUALITY IMPROVEMENT

Since World War II, the nation's health care costs have risen more rapidly than the overall inflation rate. Media reports of scientific discoveries and technological inventions have increased public expectations for health care and created a demand for a comprehensive national health program. Laypeople's increased sophistication about health care technology and growing disaffection with health care providers have led to increased malpractice suits against physicians, nurses, and health agencies. Premiums for medical malpractice insurance have risen so high that some physicians no longer perform surgical procedures or deliver babies (Grady and Siegel, 1991).

Spurred by public pressure to improve quality and decrease the cost of health care, federal, state, and local regulatory bodies now require health agencies to implement quality-monitoring and -improvement measures. Various professional organizations also recommend that members engage in continuous quality-improvement efforts. To be accredited by the JCAHO, an agency must coordinate all quality-improvement activities into a comprehensive, agencywide program. The American Nurses' Association (1973) developed a model to guide the evaluation of nursing performance, patient care, and organizational settings. Since then, members of ANA's various practice divisions have developed outcome standards to be used as criteria for evaluating nursing care quality in each nursing specialty.

THE JOINT COMMISSION'S QUALITY-IMPROVEMENT PROGRAM

The JCAHO, a voluntary, nongovernmental organization, has made maintenance of a well-defined quality-monitoring and -improvement program a requirement for hospital accredita-

tion. In their 1992 *Accreditation manual for hospitals*, the JCAHO (1992a) advocates the following standards for a *multidisciplinary, coordinated, organizationwide quality-improvement program*:

1. The organization's leaders set expectations, develop plans, and implement procedures to assess and improve the quality of the organization's governance, management, clinical, and support processes.
2. The organization has a written plan for assessing and improving quality that describes the objectives, organization, scope, and mechanisms for overseeing the effectiveness of monitoring, evaluation, and improvement activities [goes on to describe the need to identify key indicators, assess infections, utilization review, analyze accidents and injuries, etc.].
3. There is a planned, systematic, and ongoing process for monitoring, evaluating, and improving the quality of care and of key governance, managerial, and support activities . . . [explains that "key" care aspects are those most important to patients' health and safety and recommends analysis of outcome patterns/trends that vary from expected levels].
4. The administration and coordination of the hospital's approach to assessing and improving quality are designed to assure that . . . necessary information is communicated among departments. . . . There are operational linkages between risk management functions . . . and quality assessment and improvement function

The revised monitoring and evaluation standards included in the JCAHO's *Accreditation manual for long-term care* (Joint Commission on Accreditation of Healthcare Organizations, 1992b) were designed to overcome such weaknesses in past quality assurance activities as

1. Focus on clinical aspects of care, and neglect of managerial issues.
2. Compartmentalization of quality-assurance activities according to organization structure rather than patient care.

3. Focus on performance of individual employees, rather than work groups.
4. Initiating improvements only to remedy identified problems.
5. Separating care effectiveness from care efficiency.

To overcome care quality problems, JCAHO standards for long-term care agencies require an ongoing assessment and improvement program that systematically monitors care elements and pursues opportunities to improve patient care. The 1992 standards require that quality and appropriateness of care be monitored and evaluated in the following major areas: patient activities; dietetic care; medical care; nursing care; oral health care; rehabilitation care; social services; drug usage; infection control; patient incidents; and patient complaints. For long-term care facilities as for hospitals, information about care quality is to be communicated among disciplines, and the status of identified problems is to be tracked to facilitate resolution (Joint Commission on Accreditation of Healthcare Organizations, 1992b).

Although evaluation by the JCAHO is voluntary, accreditation by that organization is often used as a criterion for state licensure, educational program accreditation, and fiscal reimbursement by third-party payers. Consequently, its recommendations carry considerable weight for health service managers.

The JCAHO advocates that patient care problems be identified through methodical observation to detect "critical indicators" of serious and frequent problems. Experts in each clinical specialty should establish the critical clinical indicators or problem signs to be searched for. Critical clinical indicators for the emergency department might be a patient leaving the emergency room against medical advice; cardiorespiratory arrest in the emergency room; patient death in the emergency room; injury to an emergency room patient or visitor; or patient discharge from the emergency room following examination for head injury and later readmis-

sion with evidence of decreasing levels of consciousness.

Critical clinical indicators in an obstetrical unit might include precipitate delivery in the labor room; patient convulsions; perineal laceration; or maternal blood loss in excess of 500 ml. Critical clinical indicators for a medical surgical unit might include development of a decubitus ulcer during hospitalization; patient fall; medication error; postoperative wound infection; urinary infection following insertion of an in-dwelling catheter; postoperative hemorrhage, cardiac arrest; or death. The information sources to be monitored in search for these critical indicators would include nurses' change of shift reports, the nursing unit's 24-hour summary of patients' conditions, critical incident reports, infection-control reports, cardiopulmonary resuscitation reports, and patients' medical records.

It is expected that any problem identified by monitoring critical clinical indicators will be promptly analyzed and corrective action taken. In a southern hospital, analysis of data about patient falls revealed that patients most likely to fall had orthopedic problems on admission, were over 65 years of age, and had been in the agency less than one week (Innes and Turman, 1983). Falls were most apt to occur while the patient was attempting to go to the bathroom. As a result of these findings, patient at high risk of falling (over 65, confused, unsteady, and known to have fallen previously) were identified by placing a red sticker on the patient's room door, a red dot on the nursing call-light board, and a red arrow on the patient's care plan. Alerting nursing personnel to the fall-prone patient's need for close monitoring resulted in a 25 percent reduction in patient falls in a six-month period. This improvement was sustained for a year but was lost when the red dot/red arrow system fell into disuse and the fall-prevention program was not explained to new per diem nurses (Innes, 1985).

During the 1970s the Joint Commission on Accreditation of Hospitals (JCAH) developed a

system for retrospective chart audit known as Performance Evaluation Procedure (PEP) for auditing and improving patient care (J.C.A.H., 1975). Today retrospective chart audits are less popular, because quality-improvement efforts are supposed to improve care quality for currently hospitalized patients. However, some authorities predict that, when all patient records are computerized, a computer-assisted PEP will be developed (Longabaugh, 1984).

AMERICAN NURSES' ASSOCIATION'S QUALITY-ASSURANCE/IMPROVEMENT PROGRAM

Following passage of Public Law 192-603 in 1972, the ANA was contracted by the U.S. Department of Health, Education, and Welfare (U.S. DHEW) to develop standards of nursing practice that could be used by professional standards review organizations (Davis, 1977). The standards of nursing practice that were developed by the ANA in 1973 were used as guidelines for several nursing quality-assurance programs (Barba et al., 1978). These early standards were process oriented and facilitated systems analysis of nursing interventions. The 1973 ANA standards were:

1. The collection of data about the health status of the client/patient is systematic and continuous. The data are accessible, communicated, and recorded
2. Nursing diagnoses are derived from health status data.
3. The plan of nursing care includes goals derived from the nursing diagnosis.
4. The plan of nursing care includes priorities and the prescribed nursing approaches or measures to achieve goals derived from the nursing diagnoses.
5. Nursing actions provide for client/patient participation in health promotion, maintenance, and restoration.
6. Nursing actions assist the client/patient to maximize his or her health capabilities
7. The client/patient's progress or lack of progress toward goal achievement is de-

termined by the client/patient and the nurse

8. The client/patient's progress or lack of progress toward goal achievement directs reassessment, reordering of priorities, new goal setting, and revision of the plan of nursing care.

The ANA *Standards of clinical nursing practice* have recently been updated (American Nurses' Association, 1991). These revised standards should be used to guide nursing quality-improvement efforts. The ANA's 1991 clinical nursing practice standards are of two types: standards of care and standards of professional performance:

Standards of care

1. The nurse collects client health data.
2. The nurse analyzes the assessment data in determining diagnoses.
3. The nurse identifies expected outcomes individualized to the client.
4. The nurse develops a plan of care that prescribes interventions to attain expected outcomes
5. The nurse implements the interventions identified in the plan of care.
6. The nurse evaluates the client's progress toward attainment of outcomes.

Standards of professional performance

1. The nurse systematically evaluates the quality and effectiveness of nursing practice (a clear call for assessment of nursing care quality).
2. The nurse evaluates his or her own nursing practice in relation to professional practice standards and relevant statutes and regulations (a guide to quality-assessment methodology).
3. The nurse acquires and maintains current knowledge in nursing practice (a call for lifelong continuing education).
4. The nurse contributes to the professional development of peers, colleagues, and

others (indicates uses for quality-assessment/improvement information in addition to its value in optimizing patient care).

5. The nurse's decisions and actions on behalf of clients are determined in an ethical manner (clarifies the philosophical basis for continuous efforts to improve nursing care quality).
6. The nurse collaborates with the client, significant others, and health care providers in providing client care (emphasizes the multiple consumers of nursing care outcomes).
7. The nurse uses research findings in practice (suggests relevance of research findings, as well as assessment data to quality-improvement efforts).
8. The nurse considers factors related to safety, effectiveness, and cost in planning and delivering client care (suggests areas in which critical clinical indicators should be continuously monitored).

Of all services in a health agency, nursing is the only one that provides intimate, individualized, and continuous service on a 24-hour basis throughout the patient's entire length of stay. Nursing also takes a more holistic view of the patient-family unit than other health care services, such as medicine, pharmacy, nutrition, psychology, and social work. For these reasons, nurses are more able to coordinate continuous quality-improvement activities than members of other health disciplines (Moran and Johnson, 1992).

DEFINITIONS

In order to understand the quality-assurance/improvement guidelines that are distributed by legislative, voluntary, and professional bodies, the nurse manager should be familiar with the following definitions.

A *philosophy* is a system of motivating beliefs and principles that direct actions of a particular group during goal pursuit. The philosophy of a

nursing department determines goals of the nursing work force, which in turn influence patient care objectives established by each nurse.

Accountability is the obligation to provide a reckoning for one's actions to the persons who delegated authority for that action. The conscientious nurse exhibits accountability toward her or his employer, the patient, and government agency or insurance company that pays for the patient's health care.

A *nursing care outcome* is the end result of a nursing intervention, a measurable change in the state of a patient's health that is occasioned by nursing action.

A *criterion* is the value-free name of a variable that is known to be a reliable indicator of quality (Schmahl, 1979). For example, it has been shown that the type and amount of a nurse's educational preparation affect the quality of her or his patient care decisions.

A *standard* is the desired quantity, quality, or level of performance that is established as a criterion against which worker performance will be measured. A nursing department might establish a standard that requires 100 percent of the agency's nurse managers to earn a bachelor's or higher degree by a target date.

A *norm* is current level of performance of a selected work group with reference to a given criterion. A hospital-wide concurrent chart audit might reveal that the norm for establishing a nursing diagnosis for each patient within 12 hours of admission is 50 percent.

An *objective* is a goal toward which effort is directed. To be effective, a goal should be expressed in observable, measurable terms and should include a target date for fulfillment. For example, a nursing department might establish the following objective: "By January, 1995, all head nurses will be certified trainers of cardiopulmonary resuscitation."

A *critical clinical indicator* is a quantitative measure that can be used as a guide to monitor and evaluate the quality of important patient care activities (Lehman, 1989).

Measurement is the objective process of de-

termining capacity, quantity, or dimension of an object, phenomenon, or outcome. *Evaluation* is a subjective judgment based on objective measurement. A nurse might measure the diameter of a decubitus ulcer on each of 10 successive days. After analyzing the direction and amount of change in these measurements, the nurse could evaluate the degree of tissue healing associated with a particular nursing intervention as being "satisfactory" or "unsatisfactory."

Feedback is information about system performance that is reflected back into the system as a basis for monitoring system operations. Information about a patient's postdischarge compliance with prescribed drug regimen and clinic schedule could be used as feedback about the quality of a nurse's predischARGE planning.

Quality health care is the appropriate application of medical science knowledge to patient care, while balancing the hazards associated with each intervention with the benefits resulting from the intervention (Donabedian, 1980).

Quality assurance is the process of establishing a target degree of excellence for nursing intervention and taking action to ensure that each patient receives the agreed-on level of care. A quality-assurance committee might decide that in preparation for hospital discharge, each surgical patient should receive self-care instruction about wound care, activity level, dietary regulation, prescribed medications, possible complications, and schedule for clinic followup. After informing nursing personnel about the purpose and method for such instruction, the committee could perform a retrospective chart audit to determine the rate of compliance with this standard and then provide instruction or correction for nurses who fail to provide or record prescribed instruction.

Continuous quality improvement is the ongoing process of monitoring structure, process, and outcome indicators in order to identify signal events, significant trends, and opportunities for change that will guide health care professionals in preventing patient care problems and improving already satisfactory patient services.

Concerns about patient care quality have now moved beyond desire to ensure care quality to a commitment to improve care quality. Current efforts relating to nursing care quality are apt to be titled continuous quality-improvement programs, rather than quality-assurance programs, because the goals of the latter only aim at maintaining care quality at a preset level. Continuous quality improvement is an ongoing process through which care standards and practice behaviors are progressively enhanced to ensure that current research findings and practice improvements benefit patient and public welfare.

The *effectiveness* of a particular nursing intervention is the extent to which desired outcomes are attained through use of the intervention. The *efficiency* of a particular nursing intervention is determined by computing the intervention's cost-benefit ratio, or the relationship between monetary value of resources expended and monetary value of results achieved.

A *peer* is a colleague, of equal status and ability, who is engaged in clinical practice in a similar unit in the same agency and can accurately assess the appropriateness of an associate's response to a patient's care needs. A first-year graduate staff nurse on one general medical unit is the peer of a first-year graduate staff nurse on the same or another general medical unit. *Nursing peer review* is the evaluation by a group of practicing professional nurse peers of the quality of nursing care implemented by another nurse. The evaluation is based on pre-established standards that have been set by the reference group.

APPROACHES TO QUALITY IMPROVEMENT

Over the years several approaches have been used to improve the quality of nursing care. There are three classic frameworks from which nursing care can be evaluated: structure, process, and outcome. Each of these interacting elements contributes to the quality of nursing care. Furthermore, an improvement in any ele-

ment is likely to produce favorable change in the other two.

Structural elements include physical setting; instrumentalities; and conditions through which care is administered, such as the nursing department's philosophy and objectives, the health agency building, organization structure, financial resources, equipment, agency licensure, and attitudes of patients and employees.

Process elements include steps of the nursing process; assessing, planning, implementing, and evaluating; and all subsystems within the nursing process, such as taking a health history, performing a physical examination, making nursing diagnoses, determining patient care goals, constructing a nursing care plan, performing each prescribed care task, measuring patient outcomes, and reporting patient's response to care/treatment.

Outcome elements are changes in patient health status that result from nursing interventions. These changes include modifications of symptoms; signs; knowledge; attitudes; satisfaction; skill; and compliance with treatment regimen (Carey and Posavec, 1981).

Each of the three frameworks permits more than one approach to quality improvement. Structure can be examined from the standpoint of the total health agency or the nursing unit in which the patient receives care. Process can be examined by focusing on actions taken by the nurse or care received by the patient (Doering, 1983; Speedling et al., 1983). Outcomes can be analyzed from the nurse's or the patient's and family's frame of reference.

MEMO CAPSULE

Quality-Improvement Approach

- **Structure.** Physical setting, personnel, equipment
- **Process.** Policies, procedures, care interventions
- **Outcome.** Patient results of nursing plans and interventions

Early efforts for quality improvement concentrated on structural elements of care (Wald, 1912) and emphasized qualifications of the persons who rendered nursing care. Later quality-improvement efforts were process oriented, and specific nursing interventions were evaluated through direct observation (Wandelt and Ager, 1974) or chart audit (Phaneuf, 1976) (Fig. 28-1). Eventually, quality-improvement efforts became outcome oriented, as in the PEP introduced by the JCAH (Jacobs and Jacobs, 1974) and health outcome criteria developed by nurses at the University of Wisconsin (Zimmer et al., 1974). Current goals for the continuous quality improvement of nursing care are based on the philosophy that nursing structure, process, and outcome are inextricably intertwined, so that all three elements must be modified to improve care quality (Distel, 1981; Sinclair and Frankel, 1982). When only the process of care is assessed, attention is so focused on technical aspects of caregiver behavior that "art-of-care" is ignored. When attention is focused solely on care out-

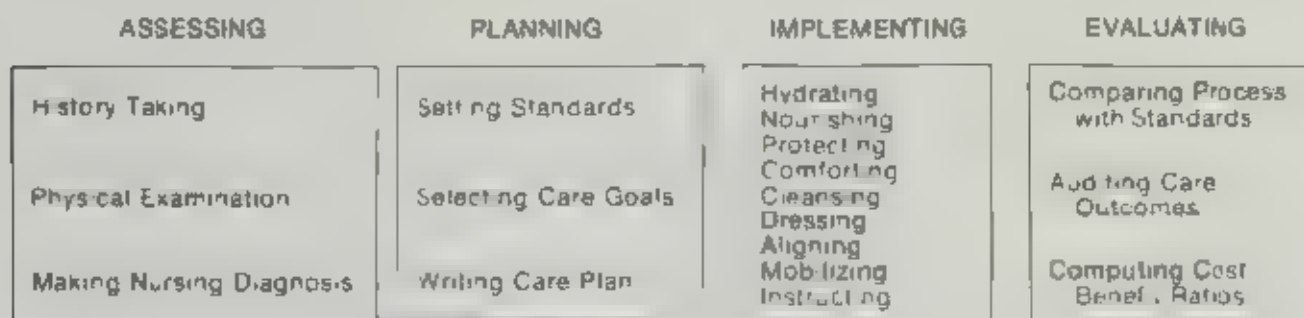


Figure 28-1 Nursing process elements suitable for study.

comes, it is impossible to determine which of several nursing actions was responsible for desired and undesired patient outcomes.

PRINCIPLES UNDERLYING QUALITY-IMPROVEMENT EFFORTS

Nurse managers who have implemented quality-improvement efforts have identified underlying principles for this control measure:

1. Because both physicians and nurses contribute to patient care outcomes, neither physicians nor nurses should unilaterally carry responsibility for quality improvement. Rather, all health care professionals should collaborate in projects to measure and improve care.
2. In planning a comprehensive quality-improvement program for a health agency, the activities of various health professionals must be coordinated to ensure that efforts of diverse caregivers enhance those of others.
3. Managers should undertake cost-benefit studies to ensure that resource expenditure for quality-assurance activities is appropriate in amount.
4. To ensure that resources invested in improvement efforts yield significant results, nurses should monitor only *critical* performance factors, that is, those activities that yield the greatest health and financial benefit.
5. The key to improving patient care quality is accurate evaluation of care, and the key to successful evaluation of care is adequate documentation of care. The burden of documenting nursing care quality rests with the nurse caregiver, not with the auditor.
6. The ability to achieve nursing objectives depends on the optimal functioning of every step in the nursing process, and effective monitoring of nursing systems is based on feedback from all subsystems of the nursing suprasystem.

- Evaluation of care alone will not improve nursing practice. Continuous feedback of nursing outcomes is needed to perpetuate good practice and replace unsatisfactory interventions with more effective methods.

8. After nursing care quality is assessed and needed improvements are identified, peer pressure can provide the impetus needed to effect the prescribed practice changes.
9. If assessment reveals the need for a different pattern of care delivery, reorganization of care at the unit level may require changes in formal organization structure.
10. For quality-improvement efforts to be effective, the collection and analysis of quality-assessment data must be performed by a nurse who has decision-making authority. Data related to structural inadequacies, process failures, and inadequate outcomes are without value unless they are used by a change agent to motivate remedial action.

IMPLEMENTING A QUALITY-IMPROVEMENT PROGRAM

All nurse managers in a health agency should identify valid quality indicators, monitor selected indices on an ongoing basis, and guide subordinates in remedying causes for poor quality. The most successful quality-improvement programs are simple, inexpensive, and non-threatening to nursing personnel. Even a simple quality-improvement program requires months of preparatory time. Early quality-assurance programs were so time-consuming that many agencies appointed a full-time quality-assurance coordinator to organize and direct the efforts of nursing personnel who participated in identifying care problems and criteria, setting standards, monitoring process and outcome elements, and identifying needed practice changes. Today, continuing-quality improvement is considered part of the professional role of nurses

at all levels of organization hierarchy, so that fewer agencies appoint a nursing quality-improvement coordinator.

Quality-Improvement Task Force

After the philosophy and objectives for a continuing quality-improvement program have been adopted by the professional nursing staff, a quality-improvement committee or task force may be appointed to coordinate the quality-improvement efforts of nurses in different clinical specialties. The task force should provide representation from all clinical nursing divisions, nursing management, clinical nurse specialist group, and staff nurse group. Some nurses who are appointed to the continuous quality-improvement task force may have little previous experience in formulating performance and outcome criteria, setting realistic standards, and selecting critical quality indicators. If so, the vice-president of nursing and nurse administrators should provide these individuals with staff-development opportunities that enhance their knowledge and skills for quality-improvement activities. To ensure committee effectiveness, the vice-president should engage task force members in a quality-improvement workshop to familiarize them with the purpose, terminology, underlying principles, methods, and materials used in a quality-improvement program.

When members of the quality-improvement task force are appropriately oriented to the agency's quality-improvement philosophy and goals, the group should discuss members' personal beliefs about care quality and improvement, explore differences in nursing values, and identify agency supports and constraints for quality-improvement efforts.

When task force members have selected an overall approach to nursing quality improvement (some combination of structure, process, and outcomes), the group should develop both long-range and annual quality-improvement goals and rank them in order of priority. These goals will help to identify the problems that need immediate attention.

Usual topics for nursing quality improvement are patient problems of high incidence or great severity. In selecting quality-improvement topics, the task force should focus attention on those care problems for which effective interventions have been identified and those aspects of nursing practice for which the intervention-outcome linkage has been established. As an aid in ranking improvement topics, the task force should establish the probable cost-effectiveness of each improvement by (1) seeking evidence that the desired benefit of remediation is achievable; (2) deciding what data are needed to verify the suspected process or outcome deficiency; and (3) calculating probable benefit from monitoring improvement efforts. If an existing problem is clearly evident without further data collection, if a problem is clearly irremediable, or if remediation would produce only trivial health or financial gain, the topic is not suitable for quality-improvement efforts—at least not during the program's early stages. In picking and ranking care aspects for quality-improvement efforts, nurses should determine whether, for identified indicators, achievable benefits have already been realized. Improvement topics should be problems for which achievable health, economic, or educational benefits have not been fully reached. When state-of-the-art and current knowledge permit higher quality care and better results than have been obtained, quality-improvement efforts are appropriate.

QUALITY-IMPROVEMENT METHODS

The public's demand for lower-cost and higher-quality health care necessitate *ongoing* quality improvement. Nursing leaders should design management strategies that encourage and reward improvement efforts by individual nursing employees.

The primary purpose of a nursing quality-improvement program should be the enhancement of patient outcomes, not disciplining incompetent nurses. The thrust of a nursing quality-improvement program should be twofold. (1) to measure; and (2) to improve the quality

of nursing interventions. To achieve both purposes, a variety of methods are needed, including monitoring critical indicators of care; retrospective and concurrent care audits; patient care profile analyses; setting professional standards; patient-satisfaction surveys; nursing peer review; and quality circles (Fig. 28-2). Whatever the method used, the nurse's primary aim should be to discover which elements of care produce optimal outcomes for patients of each type, so as to guide personnel in replacing ineffective with effective interventions.

Identifying Clinical Indicators of Quality Care

A clinical indicator (sometimes referred to as a "critical clinical indicator") is a quantitative measure that serves as a guide to monitor and evaluate the quality of an important aspect of patient care (JCAHO, 1989). Data relating to clinical indicators are not direct measures of care quality but "flags" that identify elements of patient care that may require further evaluation (Lehman, 1989). Indicators, like criteria, are of three types: structure, process, and outcome. Caregivers in each nursing unit should determine the indicators to be continuously

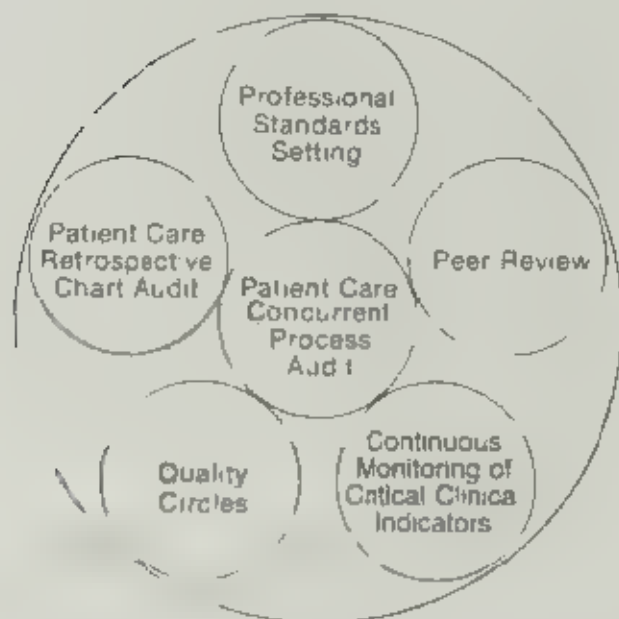


Figure 28-2 Quality improvement activities.

MEMO CAPSULE

Critical Indicators (Rate Based) Surgical Unit

- Postoperative pneumonia
- Paralytic ileus
- Wound infection
- Hemorrhage
- Wound dehiscence
- Urinary tract infection
- Phlebitis
- Fever
- Cardiac arrest

monitored in that clinical setting. There are two general types of indicators: sentinel event and rate based. A sentinel event indicator is a serious, untoward care process or outcome, such as a medication error or hospital-acquired decubitus ulcer. Ideally, the incidence of a sentinel event indicator should be low. A rate-based indicator reflects the incidence or frequency of a care process or patient care outcome that varies from normal or shows a significant trend line. Rate-based indicators can be divided into two types: occurrence indicators, which identify care outcomes, and compliance outcomes, which refer to care processes. Indicators can be expressed in desirable or undesirable terms (Williams, 1991).

MEMO CAPSULE

Critical Indicators (Rate Based) Geriatric Unit

- Patient fall
- Decubitus ulcer
- Urinary tract infection
- Fecal impaction
- Contracture
- Elopement from facility

Guidelines for developing clinical indicators are

1. Focus clinical guidelines on high risk, high-volume, problem-prone aspects of patient care
2. Construct a few, highly specific clinical indicators for continuous monitoring
3. Determine the users of indicator-related data.
4. In selecting clinical indicators for continuous monitoring, take advantage of existing data, whenever possible (such as in infection-control reports, reports of patient incidents, reports of cardiopulmonary resuscitation, etc.).
5. Select indicators for which collection and interpretation will be least cumbersome. (Lehman, 1989)

Reliability and Validity of Measuring Tools

Quality improvement is based on measurement. Therefore, designers of nursing quality-improvement efforts should be concerned with the reliability and validity of quality measuring tools.

Reliability is the consistency with which a tool measures whatever it measures. A tool's reliability can be determined by testing whether two individuals using the same tool to measure the same object or phenomenon arrive at the same conclusions regarding quantity or quality (inter-rater reliability). To determine the reliability of a tool that measures an unchanging object or phenomenon, the same person should use the tool to measure the object or phenomenon at different times, then determine the amount of agreement between the two measurements. The greater the agreement between the two sets of measurements (scores of two investigators at the same time or scores of the same investigator on two occasions), the greater the instrument's reliability.

Validity is the degree to which a tool measures what it purports to measure. A "patient

care quality-assessment" tool offers high validity if it renders high scores in situations where patient outcomes approach ideal and low scores when patient outcomes are clearly inadequate. On the other hand, a patient care quality-assessment tool offers low validity if it renders high scores in situations where patient outcomes are undesirable but nurses' speaking and writing skills are superior.

To ensure the reliability and validity of measurement, each criterion statement must be free of bias. That is, each patient to whom the criterion is applied must provide equal opportunity for obtaining a "good" score.

Quality-Improvement Criteria

Each quality-improvement criterion should be stated to reveal a range of values, thereby facilitating the identification of individual differences and changes in a patient's condition through time. For example, the following criterion might be used to measure nursing care quality for a patient with terminal cancer: "Using numbers 1 through 5, rank the patient's complaints of pain in terms of other similar patients whom you have cared for: 5 refers to greater amounts of pain, and 1 refers to small amounts of pain."

To maximize benefit from quality-improvement efforts, appropriate structure, process, and outcome criteria must be used. When a nursing care measure is targeted for improvement, measurement criteria should be written by nurse specialists with expertise in caring for such patients, to ensure that significant nursing interventions and achievable patient outcomes are being addressed.

When the goal is to improve the operations of a selected nursing division or unit, as in a management improvement effort, the quality-improvement task force can identify appropriate indicators by asking managers from similar divisions or units to identify significant characteristics, operations, and outcomes of their own service.

Process criteria should address steps of the nursing process that are significant to the targeted patient population. The following criteria could be used to evaluate care quality in a community nursing setting

1. In partnership with the family, collect data about the patient's health history, including incidence of infectious diseases; allergies; fractures; surgical procedures; chronic illness and disabilities; immunizations; and use of alcohol, tobacco, and drugs.
2. In partnership with the family, collect health-related data about the patient's physical and laboratory examination, including skin, facial, postural; motor, and sensory abnormalities; urine, stool, and sputum specimens; and possible contact allergens.
3. Record data in a timely, systematic, standardized fashion, including patient's medical record, Kardex care plan; change-of-shift reports; incident reports; referral forms. (adapted from Schmele, 1987)

The following criteria were used to evaluate the quality of information communicated about the adult surgical patient:

1. The collection of data about the health status of the individual is systematic and pertinent. These data are recorded and communicated to appropriate persons:
 - a. Assessment functions to evaluate pain relief
 - (1) During first 24 hours or if unstable, the blood pressure, pulse, and/or respirations are assessed prior to administration of an analgesic.
 - (2) Pertinent vital signs are monitored one hour after receiving first analgesic on floor or if vital signs are unstable.
 - (3) Ask patient to rate pain on 1 to 10 scale every three to four hours.
 - (4) Physician is notified if medication

and other measures are not effective. (Fogelsong, 1987)

Outcome criteria should focus on desirable results of care given to the studied patient population. These criteria were used to evaluate care of the adult surgical patient

- A. The patient's postoperative pain is relieved to a minimal level of discomfort.
3. Measures dealing with a patient's pain are effective:
 - a. Patient does not complain of pain within 30 minutes to one hour after pain relief intervention.
 - b. When appropriate, patient receives noninvasive comfort measures (examples: back rub, positioning, distraction, rhythmic breathing). (Fogelsong, 1987)

Testing Quality-Improvement Criteria

The criteria prepared for each selected care topic should be applied on a trial basis to a small sample of the target population to determine whether the criteria facilitate reliable and valid measurement of nursing quality. To be useful, criteria should be realistic, understandable, stated in behavioral terms, and achievable with reasonable effort.

Process criteria that have been used to measure care quality vary in specificity from a plan of nursing care coordinated with the medical plan of care (Hausmann and Hegyvary, 1976) to observing color and temperature of the extremities for thrombus formation (Barba et al., 1978). Surveyor training workshops were used to increase the reliability of the Rush Presbyterian-Medicus assessment tool, and an outside panel of experts was used to establish content validity of the same instrument. Outcome criteria that have been used to measure care quality range in specificity from "Is the body clean?" (Corn and McGill, 1974) to "Number of fever days during hospitalization" (Aydelotte and Tenner, 1960). The reliability and validity of many outcome criteria have not been determined. Reliability of outcome criteria may be tested by

comparing scores of pairs of investigators who use the criteria to measure care outcomes for the same patients. Long-term studies should also be performed to determine the validity of outcome criteria for nursing care given throughout an entire episode of illness. Outcome criteria could also be validated by demonstrating effect-cause linkages between each care outcome and documented nursing intervention (Block, 1975).

Preparation of the Measurement Tool

When appropriate process and outcome criteria have been established by nurses in a particular specialty (with help as necessary from the quality-improvement task force), clinical nurse specialists should organize the selected criteria into measurement tools and forms for data gathering. Different types of tools have been used to measure care quality. Some are based on nursing practice standards developed by the ANA or a nursing specialty organization. Some are based on generic nursing care plans for common medical or nursing diagnoses. Some are based on the nursing process and the subsystems of each process stage.

Whichever approach is used, time can be saved by tailoring the tool to fit the knowledge level and observation skills of the nurses who will use the tool. Hence, tool terminology should be selected with user qualifications in mind. A quality-assessment tool should be comprehensive enough to obtain all categories of information needed to assess nursing quality. However, the tool should be as short as possible to decrease the time needed for data gathering and tabulating. Furthermore, the tool should be designed so that data are easily tabulated and scores and subscores can be computed for different data categories.

After the quality-assessment tool has been prepared, the quality-improvement task force should set standards for acceptable performance, for the tool as a whole and for various sections of the tool. For critical indicator monitoring, a standard of 0 percent occurrences is

set for an undesirable care outcome and 0 percent omissions for a desirable nursing measure. For patient record audits (less popular now than formerly), it is customary to set a standard of 100 percent for such positively stated criteria as "temperature of 99°F at time of hospital discharge" and a standard of 0 percent for such negatively stated criteria as "contracture of hip joint of amputated leg."

TOTAL QUALITY MANAGEMENT

During the 1980s, many health agencies have adopted the philosophy of Total Quality Management or Continuous Quality Improvement, which has been used to improve productivity of such corporations as American Telephone and Telegraph, Ford, General Motors, and National Aeronautical Space Administration (Burda, 1991; Lynn, 1991). The total quality management (TQM) system was first implemented in the Japanese auto industry following World War II under the leadership of Dr. W. Edwards Deming. Dr. Deming is an American management consultant whose organizational improvement methods are based on continuous improvement of all work processes and unrelenting attention to consumer needs and desires. Deming used the following points to outline the steps for implementing TQM.

1. Individual employees are both suppliers of input and customers of others' output.
2. All work processes are subject to continuous improvement to increase customer satisfaction.
3. Customer needs and experience with service are determined and communicated throughout the agency.
4. Managers are responsible for improving organizational systems, so that workers can improve performance.
5. Employees at all levels must be trained in TQM and taught how to perform properly all job functions.
6. Each department generates statistical

measurement data that empower employees to improve work processes.

7. Data collection for quality assessment occurs at the employee level. Employees participate with quality assessment personnel in data analysis.
8. A collaborative approach is used to integrate all suppliers into the TQM process.
9. Teamwork is needed to foster problem solving and eliminate barriers between specialty areas and roles.
10. Corporate culture must change, by establishing long-term goals to support quality, maintaining performance standards over time, empowering employees, openly demonstrating quality monitoring, and developing problem-solving quality circles at all organizational levels. (Deming, 1982)

Joseph Juran (1988, 1989) claims that Continuous Quality Improvement (CQI) includes three integrated processes: quality planning, quality control, and quality improvement. Juran advocates that quality planning emphasize consumer needs, quality control consist of reducing variability, and quality improvement focus on the "vital few," not the "trivial many," problem causes.

The TQM or CQI philosophy requires a massive shift in nursing efforts to improve patient care quality. In previous quality-assurance programs, nurse managers and quality-assurance "experts" carried the responsibility for ensuring nursing quality. The attention of these experts was focused on identifying undesirable nursing care outcomes and managing caregivers' behavior so as to minimize undesirable outcomes. In earlier quality-assurance programs, prescribed preventive or remedial actions were directed toward individual nurses and managers.

In a TQM program, nurses at all levels of the organizational hierarchy are responsible, not just for preventing nursing care problems but also for continuous improvement of all aspects

of nursing care (even those that are problem free). Under the TQM philosophy, nurses recognize many consumers of their services, both within and outside the health agency: patients; patients' families; patients' employers; other health professionals, nurses in other units of the agency; nurses in other agencies serving the patient and his family, and so on. Under TQM, staff nurses use market research to determine what nursing care outcomes are desired by each of these consumers and implement nursing care so as to satisfy all identified needs.

Under earlier quality assurance programs, poor quality nursing care was thought to result from an individual nurse's lack of required knowledge, skill, or attitude. With TQM, the primary cause for nursing care problems is thought to be malfunction of the health care system or organizational work systems (McLaughlin and Kaluzny, 1990). This change from atomistic to systems viewpoint replaces blame laying with problem solving and corrective discipline with teamwork.

Another component of the TQM approach is the benchmarking of processes and services. Benchmarking is the process by which members of a primary work group compare their current work process and team productivity against the best of their competition to discover ways to perfect work efforts and improve work outcomes. To date, nursing organizations have not implemented this concept of TQM, perhaps because nurses are uncomfortable in competitive situations.

Training and Motivating Nursing Staff

After the quality-assessment tool is designed, the head nurse or patient care manager of each nursing unit should train staff nurses to use the tool. Training should include explanation of the purpose of each critical indicator; meaning of each criterion; type of evidence that signifies that each criterion has been met; proper approach for data collection; and target dates for data collection and analysis.

Regular staff members can be trained as a

group in proper use of quality-monitoring tools. However, newly hired and part-time employees who have not been involved in identifying nursing problems, setting quality improvement goals, identifying critical indicators, or determining structure, process, and outcome criteria, should be oriented individually to the purpose, methods, and schedule for quality-measurement and -improvement efforts. It is advisable to include any regular staff members who are uncommitted to the quality-improvement program in indoctrination sessions with new hires and part-time employees.

In lobbying employees to support the agency's quality-improvement program, the vice-president of nursing and quality-improvement task force members should recognize staff members' investment in the status quo and understand their need to resist organizational change. Traditionally educated nurses with long tenure in a stable, paternalistic health agency are likely to resist the introduction of peer evaluation and quantitative measurement of nursing outcomes. Younger, masters-prepared clinical specialists or doctorally prepared researchers are likely to welcome opportunities to quantify nursing outcomes and to compare the benefits of alternative care methods.

If quality-assessment findings are used to provoke guilt in nursing personnel, staff turnover will increase, because threatened workers will depart for less stressful work settings. Rapid exodus of fearful or guilt-ridden nurses can decimate the work force and lower patient care quality, thereby defeating the agency's quality-improvement goals.

Too quick, too hearty support for quality-improvement goals and activities by an overzealous head nurse or manager is capable of alienating as-yet uncommitted staff nurses, making enemies of potential supporters of quality-improvement efforts. Unfortunately, nurse managers with the greatest personal investment in the quality-improvement program sometimes use external force or strong censure in their attempts to overcome subordinates' initial resis-

tance to quality-assessment and -improvement activities.

Staff nurses will be motivated to participate in quality improvement when program activities generate intrinsic job satisfiers, such as increased responsibility, creativity, personal achievement, and professional growth. Primary nursing facilitates staff nurse involvement in quality improvement, because personal accountability for assessing and enhancing nursing process and patient outcomes are inherent in the primary nurse role (Edwardson and Anderson, 1983).

To minimize staff nurse resistance to the quality-improvement program, the vice-president of nursing and nurse managers must avoid using quality-assessment data to assign blame for nursing failures and shortcomings. Quality-assessment activities should be seen as learning activities by which data are accumulated for nursing research and staff-development purposes.

Types of Patient Care Audits

Typically, patient care audits may be of several types. An audit may be focused on a particular medical diagnosis, such as diabetes mellitus; a diagnostic test, such as electrocardiography; a problem, such as transfer of patients from an acute to a long-term care facility; or a process, such as in-dwelling catheter care. The topics selected for audit should correspond to identified problems for which appropriate care measures are likely to increase patient chances for relief or recovery. In a hospital with a high incidence of postoperative infection in vascular surgery patients, the quality-improvement task force should audit nursing measures (process) and patient outcomes for individuals who have undergone femoropopliteal bypass surgery. In a hospital where there is a delay of several days between the physician's order for an electrocardiogram and appearance of the electrocardiographic tracing and interpretation on the patient's medical record, the quality-improvement task force should audit the agency's elec-

trocardiographic ordering, testing, and reporting system.

Methodologically, patient care audits are of two types. In a concurrent audit, patient care is observed as it is given. In a retrospective audit, patient care is evaluated only after the patient's discharge from the health facility. In a retrospective audit, the patient's medical record is the sole source of information about care given during the patient's stay in the facility. Retrospective audits are less expensive but less satisfactory than concurrent audits, because it is impossible to remedy instances of improper or inadequate care that are detected following patient discharge. Furthermore, it must be noted that the accuracy of a retrospective audit depends on the accuracy and completeness of documentation by all of the patient's caregivers. Care activities that are charted are assumed to have been performed, and care activities that are not charted are assumed to have been omitted. Of course, a nurse may chart passive motion exercises without performing them and may give home-care instruction to a patient or family member but fail to chart the instruction. In the latter case, the surveyor who reviews the patient's medical record would assume that pre-discharge instruction about self-care had not been given, and patient care would be judged deficient.

Performing the Audit

The function of a health agency's quality-improvement task force is to decide how large a patient sample is needed for each audit and from what time period each sample is to be drawn. Sample size and sampling period depend on the number of patients of each problem type who enter the facility per month or year. For a condition of high incidence, an adequate sample of 50 to 100 patients may be obtained within a three- to six-month period. For a condition of lesser incidence, a full year may be needed to obtain a suitable sample size.

If the retrospective audit method is used, a staff nurse or medical record technician should

be trained in the proper method for reviewing the appropriate number of charts of patients with the diagnosis or problem under study who were treated during the selected time period. The nurse or technician will be given an audit form containing the structure, process, and outcome criteria developed for the audit topic. The appropriate number of medical records from the designed treatment period are withdrawn from the record library. The nurse or technician reviews the records, one at a time, and records whether each designated criterion was or was not met. Evidence of criterion achievement may be found in nurses' notes, graphic sheet, daily progress notes, flow sheets, or discharge summary. When data from all records in the selected sample have been recorded, the data are tabulated. The reviewer prepares a summary report to indicate the percentage of the sample that meets each criterion set by the quality-improvement task force.

Analysis of Medical Record Data

After screening all sampled medical records to determine the percentage that meet each audit criterion, the surveyor should refer records showing variations from established criteria to the quality-improvement task force, so that they can determine whether the variation is justified or corrective action is needed. Occasionally, deviation from a process criterion reflects superior care and demonstrates means for improving care of other, similar patients. These variations should be analyzed and explored as possible opportunities for continuous improvement of patient care quality. The staff nurse(s) who implemented the alternative, apparently superior intervention can help the quality-improvement task force to determine whether and how to incorporate the innovation into the agency's total nursing system. More often, an identified structure, process, or outcome variation indicates the need for corrective action, such as a change in policy, procedure, equipment, or staffing pattern. If failure to meet an established criterion results from employees' lack of knowl-

edge or skill, in service programs should be mounted to remedy the lack. If failure to meet a particular criterion results from insufficient employee effort or attention, closer supervision should be provided to demonstrate the unit manager's commitment to the unmet criterion.

Previously, each discipline in a health agency conducted its own practice audits. Today, the goal is for multidisciplinary development of critical indicators and quality criteria, and multidisciplinary monitoring of care quality. Multidisciplinary audits are common (Brosnan, 1981; Curtis and Simpson, 1985; Jessee and Doyle, 1984; Wright and Wheeler, 1984). For example, a retrospective, combined medicine-nursing audit was conducted in a northwestern hospital to determine the quality of care given patients with bacterial pneumonia. Study results revealed that patient discharge criteria had been inadequately specified, and 91 percent of patients received no discharge instruction. The audit committee failed to determine whether care deficiencies resulted from lack of knowledge or performance inadequacies, so that care problems remained uncorrected (Buckingham and Shanahan, 1984).

A retrospective multidisciplinary audit was conducted in another midwestern hospital to evaluate the quality of care given patients with diabetes mellitus. Data from a randomly selected sample of medical records were measured against 18 criteria (eight medical, four dietary, two social work, and four nursing) that were established by the involved disciplines. Audit results indicated insufficient communication between involved disciplines, with 97 percent adherence to medical criteria, 63 percent adherence to nursing criteria, 50 percent adherence to dietary criteria, and 22 percent adherence to social service criteria. Following the audit, a diabetic teaching program was initiated for nursing staff members, and a summary form was developed for recording dietary instruction given patients (Aldhizer et al., 1979).

A combined structure, process, and outcome audit was used to evaluate the timeliness of mul-

tidisciplinary emergency care in a midwestern hospital (Wilbert, 1984). Total patient time in the emergency department averaged just over two hours, but 19 percent of patients were in the emergency department over three hours, and 8.1 percent were in the emergency department for over four hours. The average time from patient arrival to completion of emergency room registration was 4.4 minutes, and patients were seen by a triage nurse and placed in an examining room in 16.9 minutes. However, the average time from patient arrival to initial contact with a physician was 38.2 minutes. Laboratory tests were ordered for 27.7 percent of emergency room patients, x rays were ordered for 24 percent of patients, and consultations were requested for 15 percent of patients. Generally, patients who remained in the emergency room over four hours had higher levels of acuity, greater need for laboratory tests, x rays, and consultations, and more often arrived on the weekend. The surveyor suggested that the agency develop a walk-in clinic to which emergency room personnel could refer nonurgent patients, thereby freeing emergency room space and personnel time for true emergency care. The surveyor also recommended increased weekend staffing of medical consultants, laboratory personnel, and x-ray personnel to decrease patients' waiting time for these services.

A monitor or auditor should accompany the analysis of data (obtained by monitoring critical indicators or auditing structure-process-outcome criteria) with suggestions of methods for correcting practice deficiencies and improving patient outcomes. However, recommended practice changes will be actualized only if the head nurses of involved nursing units believe the reported data and accept the need for practice revisions (Moore, 1981). Occasionally, monitoring or auditing reports fail to achieve the desired results, because a critical step in the assessment-improvement cycle is omitted. A survey of nurses in an eastern hospital revealed that only 57 percent of nurses received feedback of audit results, either verbally or by bulletin

board display. Nurses must receive timely reports of positive and negative assessment data if they are to perpetuate desirable practices and institute needed remedies (Moore, 1982).

PEER REVIEW

In response to the public's clamor for improved care quality, some nursing organizations instituted peer review as one method for increasing nurses' accountability for effective decision making and interventions. Peer review is a process by which employees of the same profession, rank, and setting evaluate one another's job performance against accepted standards (O'Loughlin and Kaulbach, 1981). The details of a peer-review system differ from one agency to the next. However, the following characteristics are common to the process. Representatives of the group in which peer review will occur develop criteria for performance evaluation. These criteria are derived from job duties listed in the official job description (for staff nurse, clinical specialist, or other job title), together with practice standards developed for that specialty by the ANA or a nursing specialty organization. Representatives of the group decide which aspects of each nurse's performance should be evaluated by peers and what information about the nurse's performance peers must obtain to evaluate performance accurately. In one agency, a group of clinical specialists decided that peers should evaluate their job performance by observing the specialist's care of selected patients, reviewing charts of several patients cared for by the specialist, attending a few classes and demonstrations presented by the specialist, and reviewing portions of the specialist's log book of consultations, professional activities, and service projects (Blanton et al., 1985).

The peer group should develop a performance appraisal tool for calculating the value of each aspect of the nurse's performance to be evaluated by peers. The group should decide how many peers will evaluate each nurse's job

performance and how each peer-evaluation group will be selected. In some agencies peer evaluators are drawn by lot; in others, the nurse to be evaluated selects one or more evaluators and the peer group as a whole selects the remainder. In some agencies all appraisers must work on the same unit as the evaluatee; in other agencies some appraisers work on the evaluatee's unit and others work on other nursing units in the same nursing specialty.

Appraisers for each nurse meet as a group to determine who is to evaluate each aspect of the nurse's performance. One peer may be responsible for observing the nurse care for one or two primary care patients; another may be responsible for reviewing charts of two or three patients from the nurse's caseload; another may attend a few of the nurse's lectures or demonstrations for coworkers. After necessary job-performance data have been obtained, the appraisers meet again as a group. Each appraiser presents information about one aspect of the evaluatee's performance. The group discusses and weights the accumulated evidence and completes a performance-appraisal tool that yields a subscore for various job aspects and an overall job-performance score. One member of the peer-appraisal group is elected group spokesperson and becomes responsible for reporting peer-review findings to the evaluatee.

Ideally, the evaluatee should perform a self-evaluation using the same performance-appraisal tool, so that nurse and peer-review spokesperson can discuss both assessments of evaluatee's performance and develop a plan to capitalize on identified strengths and remedy observed weaknesses (O'Loughlin and Kaulbach, 1981). The peer-review system has not been wholeheartedly accepted by all nurses in agencies where it is used. Critics of the technique complain that the peer-review procedure is exceedingly time-consuming, and the system enables unscrupulous nurses to block professional advancement for a coworker whose expertise incites envy.

MEMO CAPSULE

Peer-Review Activities

- Observe nurse giving care to one to two patients in caseload
- Review nurse's records of history and physical examination findings.
- Observe the nurse's instruction of patients, families, and other staff members.
- Observe the nurse's participation in multidisciplinary patient care conferences.
- Review nurse's documentation of care on medical records, CPR reports.
- Review the nurse's change of shift reports, case-management reports.
- Review care plans, case studies, scholarly papers written by the nurse.

QUALITY CIRCLES

Since the 1970s, the emphasis has shifted from preventing mistakes that lower health care quality to ensuring the achievement of preestablished standards of care, to continuous improvement in care quality. With this shift, many health agencies instituted quality circles as a means of motivating employees to improve patient care. Quality circles were introduced in Japan during the 1960s to improve quality and productivity in various industries. A quality circle is a group of 5 to 15 employees who perform similar work and meet for one hour each week to solve work-related problems (Marks, 1986). The group's activities begin by identifying problems associated with their common task. Then, the group concentrates on one problem at a time, exploring problem causes, identifying possible solutions, and proposing a preferred solution to management through a formal presentation (Goldberg and Pegels, 1984). While identifying and analyzing work problems, the quality circle uses such decision techniques as brainstorming, cause-and-effect (fishbone) diagrams (see Chapter 23), and Pareto analysis (see Chapter 22). When management approves the

group's proposal, the circle implements its plan for problem solution and evaluates solution effectiveness. If the problem is resolved, the quality circle group moves on to the next problem that they have identified, and the cycle begins anew. When quality circles were used in hospitals, the groups were most successful in solving problems when circle leaders and members were specifically trained in problem-solving techniques (Jacoby et al., 1984; Johnson, 1985).

Giving Feedback to Staff

Experts claim that the most common shortcoming of older quality-assurance programs was the failure to provide adequate and timely feedback of information about quality-assessment data to caregivers. This problem is alleviated somewhat when caregivers, rather than managers, monitor critical indicators, establish structure, process, and outcome criteria, and measure the achievement of selected criteria (Fig. 28-3). However, caregivers in each nursing unit need information about nursing care quality in other nursing units of the agency, in addition to their own. The quality-improvement task force should develop a system for informing all nursing personnel about agencywide nursing quality assessment and improvement. To provide adequate feedback to the total nursing staff about the quality-improvement program, the task force should decide how much and what type of agencywide information about nursing quality to give all nurses, in what form (oral or written) this information is best comprehended, the proper timing for informing nurses at different hierarchical levels (caregivers before managers and managers before administrators, vice versa, or all levels simultaneously), and how frequently quality assessment data should be reported (Fig. 28-4).

The quality-improvement task force may decide to report only those quality-assessment scores that fall below the established criterion or level of acceptability. However, reports of favorable findings help to reinforce high-quality nursing performance (Coyne and Killien, 1987).

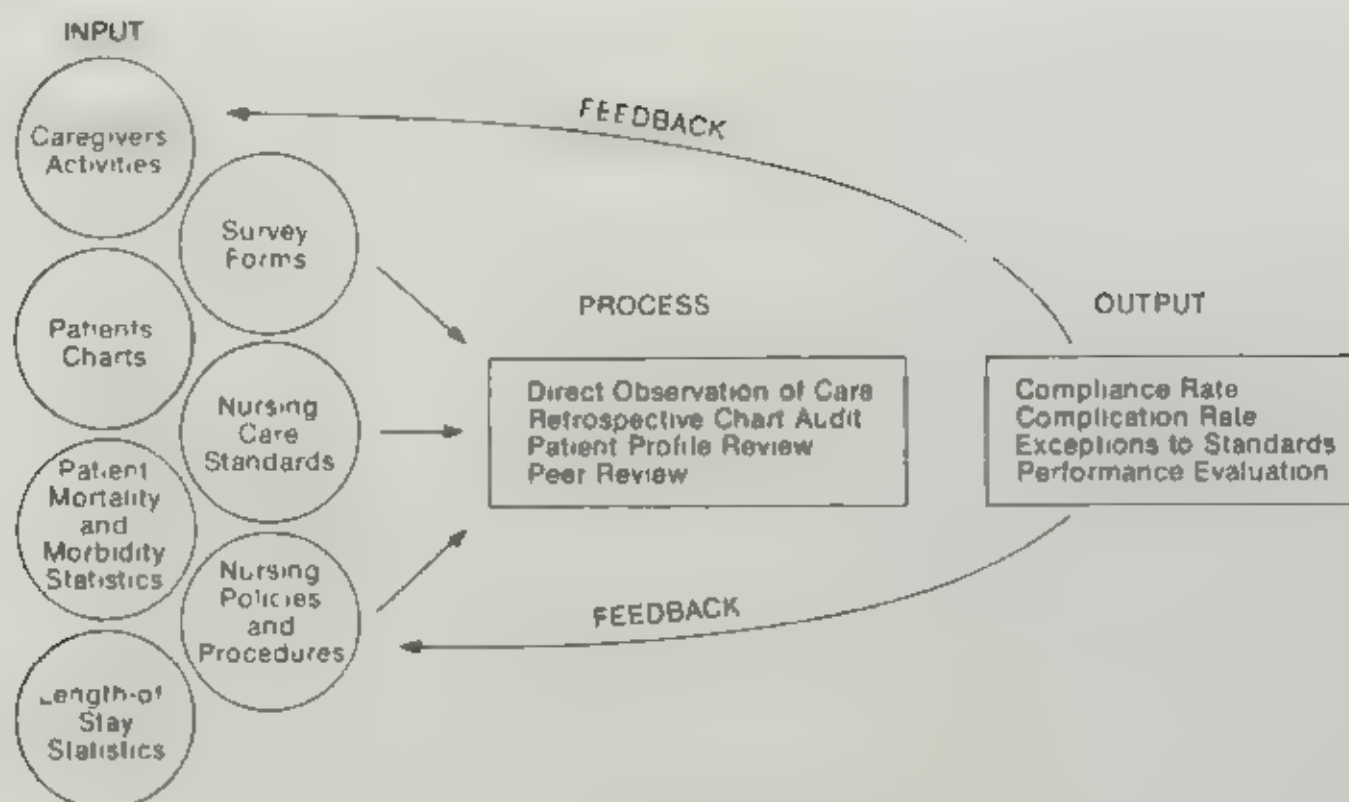


Figure 28-3 Quality-improvement system.

The method of data transmission should be tailored to the nature of the message conveyed, amount of staff resistance to quality-improvement efforts, and number of communication links between message sender and receiver. Negative findings can be more tactfully conveyed in

a face-to-face meeting with involved caregivers, thereby enabling nursing personnel to ask questions about sample size, time trends, and implications for nursing practice changes. When quality-assessment data are positive the quality-improvement task force should reinforce desir-

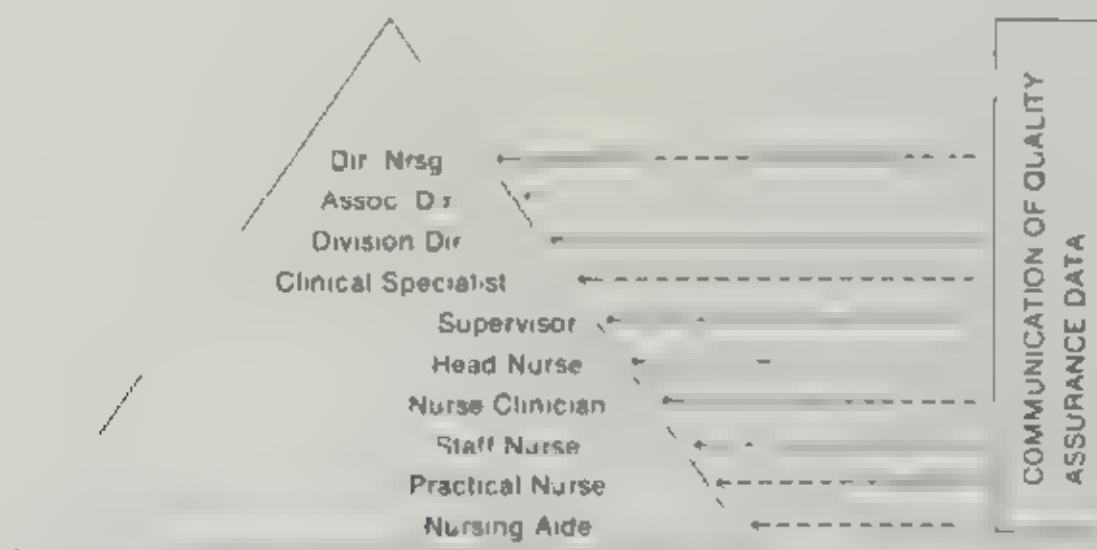


Figure 28-4 Feedback quality improvement information to all levels of nursing hierarchy.

able nursing performance by sending a letter of commendation to the responsible nursing group, commenting on possible agencywide effects of nursing improvements by the unit in question, and offering to meet with the work group for further exploration of quality-improvement opportunities. When the task force or task force spokesperson meet face to face with a unit's workgroup, the quality-assessment data discussed should be reported in written form, to prevent the omission or distortion of important problem-solving information.

Although individual caregivers bear major responsibility for improving nursing effectiveness, quality assessment data should be regularly communicated to nurses at all levels of organizational hierarchy. Unless information about process alterations and omissions and outcome successes and failures are communicated to staff nurses, ineffective nursing practices will continue, and opportunities for care improvements will be ignored. If assessment data are gathered by caregivers but not communicated to managers, the nurse manager's role as personnel coordinator will be eroded. If caregivers and first-level managers acquire and analyze quality-assessment data but fail to communicate the findings to nurse administrators and executives, agency leaders cannot effectively support subordinates' nursing improvement efforts.

Remedying Deficiencies

Some nursing errors and omissions revealed by monitoring critical indicators result from nurses' lack of critical knowledge or skill. These problems are best remedied when quality-assessment reports are regularly scanned by the director of staff development and in-service classes are designed to enhance caregivers' understanding and skill in areas relating to identified quality deficiencies. When the nursing quality-improvement and staff-development subsystems are linked with appropriate feedback loops between the two, quality-assessment

data can be continuously relayed to in-service and continuing education faculty, and staff nurses and nurse managers can request the specific type of remedial instruction needed by caregivers to enhance professional decision making and performance.

However, not every variance between nursing standards or criteria and actual nursing performance can be attributed to learning needs. Nurses who understand how, why, and when to implement essential care, cure, and coordination activities for assigned patients may fail to act appropriately because of apathy, lack of time, sensory overload, or pure "cussedness." When deteriorating nursing practice results from apathy or professional burnout, counseling or job enrichment will restore motivation for some employees. When lack of time and work overload prevent optimal performance, the manager should adjust work schedules and assignments to more healthful levels. When sensory overload and mental fatigue cause inferior work, prospective computerized reminders, protocols, and criteria lists may improve nurses' decision and memory functions. Only when nursing errors and omissions result from malicious neglect or intentional wrong-doing should progressive discipline be implemented.

PROBLEMS ASSOCIATED WITH QUALITY-IMPROVEMENT EFFORTS

Some managers have difficulty in sustaining enthusiasm for continuous quality-improvement efforts. It is possible for a nurse manager to become preoccupied with quality-assessment data to the point that she or he loses sight of the fact that the program goal is improved patient welfare, rather than improved nurse status. Unless quality-assessment data are gathered and analyzed by the caregivers most affecting, and affected by, the data and findings are communicated to staff nurses, managers, and administrators in a form that encourages positive system change, quality-assessment activities become mechanical routines.

Improvement of nursing care quality is com-

plicated by the fact that multiple factors affect care outcomes and some of these are difficult to observe and measure. The nurse's cognitive activity (planning care, interpreting physical signs), physical actions (performing diagnostic and care procedures), and attitudes (feelings about patients, families, coworkers) all affect nursing care quality. Nursing science has not developed to the point that all these nursing "behaviors" can be accurately measured. Furthermore, a nurse's social, cultural, educational, and economic background influence her or his care of patients. It is not clear how a nurse's previous experience with patients of the same diagnosis, sex, age, and cultural background affect care of a particular patient. Neither is it clear how the quality of a nurse's relationships with other employees (or other patients) affects nursing care quality. Many questions are unanswered about the effects of environmental elements (light, heat, noise, odor, space, humidity, radiation, and gaseous or microbial pollution) on the nurse's caregiving behavior and patient response to the nurse's behavior. In time, researchers will develop tools to measure the influence of these factors, but present knowledge is sketchy.

Some factors known to influence nursing care quality have not been researched because of legal or ethical barriers to the imposition of experimental controls on existing social systems. Most nurses are unwilling to deprive patients in a control group of positive reinforcement in order to measure the effects of such reinforcement on patients' acquisition of self-care skills or improved self-esteem.

Not only is it impossible to identify all factors that influence nursing care quality, but also it is difficult to define outcome criteria that result solely from nursing interventions. Subsidence of postoperative wound infection can be attributed to antibiotic and hyperalimentation therapy ordered by the physician as well as to aseptic wound cleansing and dressing by nursing personnel. Decreased tracheobronchial congestion in an intubated patient can be attributed to chest

physiotherapy by the respiratory therapist as well as to tracheobronchial suctioning and position changes by nursing personnel. For critical indicators, such as wound infection and hospital-developed pneumonia, multidisciplinary quality-assessment and improvement programs are especially useful.

A perennial problem in gathering quality-assessment data by retrospective chart audit is the fact that nurses' documentation of care measures is often vague, incomplete, and lacking in objectivity. In some agencies, nurses' charting errors and omissions are so frequent that it is impossible for surveyors to differentiate practice failures from documentation deficiencies. Increasing the implementation of computerized bedside patient records may improve care documentation and increase the accuracy of future quality-assessment information.

Health agencies differ in the types of patients that they attract, the clinical services that they provide, and the expertise level of various professional disciplines. Differences in mission, philosophy, services, patients, programs, and personnel make it advisable for a health agency to base its quality-improvement program on organization-specific structure, process, and outcome criteria and unit- or service-specific critical indicators. Consequently, there is no single, all-purpose, all-site quality-assessment tool that is universally appropriate for all health agencies—or all nursing units in a single health agency. At the same time, the American public is understandably critical of recently identified regional differences in health care quality. The challenge for the future is for the nursing profession to develop a theoretical model and operational system for continuous assessment/improvement of nursing quality that accommodates structural and operational differences between care settings and transmits practice information among nurses in all clinical and functional specialties.

SUMMARY

The primary mission of the nursing profession is to provide ever higher-quality care to

patients clients. To do this, scarce nursing personnel must employ their energies for maximum effectiveness, so as to achieve the greatest possible patient benefit from the smallest possible number of personnel. Nurse managers are responsible for determining the effectiveness of each nursing intervention and for guiding subordinates to employ interventions that most advance patient welfare and eliminate interventions that are ineffective or harmful. Formerly, measurement of nursing care quality was the responsibility of a select group of quality assurance specialists. Today, staff nurses in each specialty are expected to set nursing structure, process, and outcome standards for their work setting; identify high volume, high risk patient care problems that can be prevented by appro-

priate nursing measures; identify critical indicators of targeted problems; monitor the occurrence of critical indicators; and devise and implement practice innovations to prevent problems and capitalize on opportunities to improve care. Caregivers on each nursing unit should meet weekly as a quality-circle group to solve common work problems. Staff nurses who monitor critical indicators and invent practice improvements are expected to communicate quality-assessment findings, nursing practice improvements, and results of practice changes to the agency's quality-assessment and improvement task force. The task force is expected to communicate care quality and improvement information to all agency personnel and to the nursing profession as a whole.

RESEARCH BRIEF

Combined Methods of Auditing Care

Purpose: Determine sources of error in accounting for outpatient procedures and "collateral visits."

Sample: Random sample of patients seen in a GU Clinic over a 10-day work period

Method: Two hundred twenty-eight patient charts were audited for operative permits, operative reports, records of operative procedures in MD's notes; correlative entries on clinic log, record of collateral visits (meeting between VA staff member and patient's significant other for information exchange); and routing slip (computer entered for reimbursement). Forty-five of the audited charts were randomly selected for telephone survey to determine whether (1) patient was accompanied to clinic; and (2) accompanying person's needs for information about the patient's care were met

Results: Three audited charts contained operative reports but lacked operative permits. Eight had neither operative permits nor reports, but an operative procedure was recorded in doctors'

notes. Only 38 of 45 surgical procedures were recorded in the clinic log. In eight cases, the clerk failed to record the procedure on a routing slip. Of 35 patients contacted by phone, 18 had been accompanied to the clinic. When accompanying persons were contacted, 11 percent had not received a collateral visit, and 73 percent had unmet needs for information about the patient's health care needs. The potential annual revenue loss was \$133,450 (based on rates of failure to record procedures and provide needed collateral visits)

Application: Because clerical errors were the largest source of reimbursement loss, clinic managers should require clerks to double-check the accuracy of service records and reimbursement requests, particularly on days when patient load is heavy. Telephone surveys would be a useful adjunct to concurrent, as well as retrospective, chart review, as some nursing care outcomes cannot be observed during shortened periods of hospital stay

Source: Cherns, D., and Williams, A. Combining chart audits and telephone interviews. *Nursing Management* 21 (4): 56-60, 1990

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Performance Appraisal

Judge not, lest ye be judged.

Bibb

OBJECTIVES

After reading this chapter, you should be able to:

- 1 Explain how a nurse manager should decide which behaviors to include on a staff nurse evaluation tool.
- 2 Describe one advantage and one disadvantage of the following performance-measuring devices:
 - a. Checklist
 - b. Ranking device
 - c. Rating scale
 - d. Free response form
- 3 Indicate one method for increasing the reliability of a staff nurse performance-evaluation tool.
- 4 Describe how nursing unit objectives might be used to evaluate the performance of the unit's head nurse
- 5 Describe three actions that a head nurse could take to minimize a staff nurse's anxiety during her or his annual performance-evaluation conference.

Employee performance is the product of three underlying factors: ability, motivation, and environment. A defect in any of the three will impair performance (Brucks, 1985). An agency's performance appraisal system addresses only the first two of these underlying factors.

Accurate performance appraisal is an effective means for increasing employee productiv-

ity. Through regular evaluation of each employee's job performance, a manager can achieve multiple goals. Among these are helping a satisfactory worker to further enhance performance; telling an unsatisfactory worker which aspects of her or his performance need improvement; identifying an employee who deserves promotion; locating the best individual for a special assignment; improving commu-

ation with a distressed or distressed worker; and establishing a basis for later job coaching.

B. F. Skinner's classic conditioning experiments showed that people learn best when they receive immediate feedback about performance adequacy. Information given to an employee during performance appraisal is feedback that can direct the employee's efforts to improve.

In planning a performance-appraisal system, nurse administrators or managers should specify which person by job title is responsible for evaluating each worker. Ideally, an employee should be evaluated by his or her immediate superior in line organization structure. For a manager to accurately evaluate a subordinate's work, the two must be in frequent, direct, prolonged contact, so that the manager can observe an adequate sample of all aspects of the subordinate's performance. It is impossible for a manager with a broad span of control to have frequent, prolonged contact with every subordinate. Lacking familiarity with a worker's total job performance, a manager cannot properly evaluate the employee's work. Therefore, for a performance-appraisal system to yield valid information, managerial span of control must be small enough that each manager has the time and opportunity to observe all major job functions of each subordinate.

Experts disagree about the ideal frequency for nurses' performance evaluation. In most health agencies, each nurse's performance is evaluated at the end of the orientation period and annually thereafter. In some agencies, a nurse's performance is evaluated every six months, to reinforce good work practices and eliminate poor habits before they become entrenched.

In many agencies, a nurse achieves full employment status only after completing a three-month probationary period. This policy is based on the assumption that within 90 days a new nurse can become comfortable with the nursing unit and coworkers, with policies and procedures used in daily work, and will understand

the extent of her or his job responsibility and authority. Unfortunately, some nurses are not made fully aware of their manager's and coworkers' expectations of their performance during probation. It is the unit manager's duty to evaluate a new nurse's performance at the end of the probationary period and inform the nurse what improvements are needed (if any) to qualify for full employment status.

EVALUATION PRINCIPLES

Certain principles must be followed to evaluate a subordinate's job performance accurately and fairly. First, the employee's evaluation should be based on behaviorally stated performance standards for the position occupied (Romberg, 1986). The job description and related performance standards are presented to an employee during orientation as desirable work goals. Therefore, a nurse's job performance should be evaluated with reference to progress toward those work goals.

Second, an adequate, representative sample of the nurse's job behavior should be observed to provide a basis for evaluation. Care should be taken to evaluate the nurse's usual or consistent job behavior and to avoid undue attention to a single, atypical instance of superior or inept behavior. Exceptional behavior, good or bad, attracts more attention than typical behavior. Consequently, the manager should determine *in advance* the time when she or he will observe and evaluate a nurse's performance of selected job tasks.

Third, the nurse should be given a copy of her or his job description, performance standards, and performance evaluation form to review before the evaluation conference, so that nurse and manager can approach their discussion from the same frame of reference. The nurse, as well as the manager, should fill out an evaluation form before the conference to facilitate the discussion of those points on which manager and employee agree and disagree (Riley, 1983).

Fourth, in documenting a nurse's perfor-

mance appraisal, the manager should indicate areas of performance that are satisfactory and areas that need improvement. The manager should cite specific instances of satisfactory and unsatisfactory behavior to substantiate evaluative statements.

Fifth, if several areas of performance need improvement, the manager should specify which areas are to be given highest priority.

Sixth, the evaluation conference should be scheduled at a time convenient for nurse and manager, should be held in pleasant surroundings, and should allow adequate time for discussion.

MEMO CAPSULE

Performance-Evaluation Principles

- Assess performance in relation to behaviorally stated work goals.
- Observe a representative sample of employee's total work activities.
- Compare supervisor's evaluation with employee's self evaluation.
- Cite specific examples of satisfactory and unsatisfactory performance.
- Indicate which job area(s) have highest priority for improvement.
- Purpose of evaluation is to improve work performance, job satisfaction.

Seventh, the goal of the evaluation process should be to improve employee performance and satisfaction, rather than to threaten or punish the employee for performance inadequacy (Simpson, 1985). An employee can withstand strong criticism from a manager who is considerate of the employee's feelings and offers to coach her or him toward improved performance.

THE EVALUATION TOOL

Many types of tools are used to appraise job performance. An effective tool is one that min-

imizes bias, encourages objectivity, and maximizes validity and reliability. Every manager shows some bias in evaluating subordinates. Some managers consistently overrate the performance of male nurses. Some consistently underrate the performance of foreign-born nurses. Some overestimate the knowledge and skill of nurses who are exceptionally attractive, well groomed, and courteous. For the most part, bias is unconscious.

Objectivity is the ability to remove oneself emotionally from a situation so as to consider the facts without distortion by personal feelings. Objectivity is the antithesis of bias. Evaluation tools can be designed to eliminate certain types of bias. Bias regarding a nurse's manner of dress, grooming, or speech can be controlled by omitting items relating to such matters or including only one or two items on appearance and speech in a tool that is heavily weighted with items about psychomotor abilities. When a tool contains an equal number of items for each function listed in the job description, the evaluator is forced to consider all aspects of employee performance and is thus unlikely to overemphasize a single characteristic.

Objectivity can be increased by eliminating trigger words from the evaluation tool. Trigger words are terms that evoke highly emotional response in the evaluator. For many managers the words *unkempt*, *argumentative*, *manipulative*, *disorganized*, *controlled*, and *reliable* serve as triggers, causing the evaluator to respond emotionally rather than intellectually when appraising a subordinate with reference to the characteristic. Trigger words can be minimized by eliminating adjectives and adverbs from items on the evaluation tool. Adjectives and adverbs are most often used to describe personal traits. Greater objectivity is achieved when personality traits are ignored and attention is directed to job behaviors.

Validity is the degree to which a tool measures what it purports to measure. A measurement tool for evaluating head nurse performance is valid if it accurately measures the performance of tasks included in the head nurse

job description. To increase validity, the tool should include some items relating to each responsibility listed under the job title. The head nurse job description might specify responsibility for four functions: patient care and teaching, direction of subordinates; monitoring equipment and supplies; and research. The head nurse performance appraisal tool should contain several items relating to each function. The number of items included for each function should be proportional to the number of tasks subsumed under that function or to the proportion of head nurse time spent in that function. Tool reliability lies in consistency when used for a series of measurements or used by different evaluators. A performance-appraisal tool is reliable if two managers rate the same employee independently and arrive at the same conclusions about the quality of her or his performance. A tool's reliability can be enhanced by increasing the number of items, improving language clarity, simplifying tool structure, and providing specific directions for use.

Types of Evaluation Devices

There are six types of performance-evaluation tools in common use: free response report, simple ranking, performance checklist, graphic rating, forced choice comparison, and behaviorally anchored rating scales (Henderson, 1984).

In the free response report the evaluator is asked to comment in writing on the quality of the nurse's performance in a specified position over a specified period. The evaluator is not told which performance aspects to evaluate. The free response evaluation is likely to be invalid, be-

cause the evaluator invariably ignores some of the functions listed on the job description. The free response report lacks objectivity, because the evaluator tends to concentrate on those areas of performance that are of primary interest to him or her (not necessarily to the agency).

Some evaluation tools ask the evaluator to rank the employee against coworkers with respect to quality of her or his performance in several areas. The manager might rank a staff nurse as the highest performer in the unit in providing physical care to patients, third highest performer in providing health teaching to patients, and lowest-quality performer with regard to research productivity. The most obvious weakness of the rating scale is the fact that a manager with a total work force of excellent performers must, nevertheless, identify one in the group as worst performer, although this employee could easily be the best performer in a mediocre work group.

A performance checklist should contain a list of performance criteria for the most important tasks in the job description, with blanks beside each in which the evaluator indicates whether the nurse does or does not exhibit the criterion behavior. Criteria are statements of desired behavior, so a quick glance at a completed checklist reveals overall quality of a nurse's work performance. Table 29-1 lists items that might be included in a performance checklist for a ward clerk.

A graphic rating scale includes a listing of several activities included in an employee's job description. The manager indicates the quality of the employee's performance of each activity by checking the appropriate point on a numer-

Table 29-1 Performance Checklist for a Ward Clerk

Criterion	Yes	No
1 Reports on duty at scheduled time		
2 Sorts mail daily and delivers to proper person		
3 Files records and reports promptly and in correct location		
4 Answers telephone calls courteously		
5 Conveys telephone messages accurately		

ical scale or by selecting the appropriate phrase from several. An example follows.

1. On a scale of 1 through 5, indicate amount of the nurse's manual skill in handling surgical instruments and supplies.

1	2	3	4	5
(low)				(high)

2. Check the word that best describes the nurse's performance: Uses surgical aseptic technique in changing patients' wound dressings.

never occasionally usually always

In a forced choice comparison the evaluator chooses from a group of *weighted* descriptive statements those that best describe the employee being evaluated and those that least describe her or him. Favorable and unfavorable items are grouped so the evaluator is forced to select some unfavorable and some favorable statements to describe the individual's performance. This feature counteracts the tendency toward leniency displayed by some evaluators. Descriptive statements on the tool are weighted according to their ability to predict success in the position occupied by the employee being evaluated. Persons who use the form do not know each item's predictive ability and thus cannot deliberately skew the total score either positively or negatively. An example of forced choice comparison is as follows:

1. Select from the following statements the one that best describes the nurse being evaluated and the one that least describes the nurse: B = best, L = least:

- | | |
|-------|---|
| _____ | a. Enjoys the respect of coworkers |
| _____ | b. Complains about assignments |
| _____ | c. Prompt in reporting changes in patient's condition |
| _____ | d. Becomes disorganized when faced with an emergency |

A new type of evaluation tool, the behaviorally anchored rating scale (BARS), was developed to overcome some of the weaknesses of

older assessment tools. In the BARS technique, a separate rating instrument is developed for each job. To develop each tool, persons currently employed in the job help the manager to identify key job dimensions and determine the relative weight (from 1 to 9) of each dimension to total job performance (Huston and Marquis, 1989). Dimensions of the staff nurse job might be to plan nursing care for caseload patients; to coordinate multiple caregivers' contributions for caseload patients; to provide direct care to caseload patients; to evaluate care outcomes of caseload patients; to serve as preceptor for baccalaureate nursing students; and to assist clinical nurse specialists in implementing nursing research studies. For the planning dimension, the following behaviors might be included: interviewing the patient for a health history; performing a complete physical assessment on admission and with each change of condition; conferring with the patient to identify his or her goals for care; determining the patient's nursing diagnoses; developing a written nursing care plan that includes prioritized diagnoses and goals; consulting a clinical nurse specialist about appropriate nursing interventions; and evaluating and updating the nursing care plan on a weekly basis. In an agency using primary nurs-

• MEMO CAPSULE •

Performance-Evaluation Tools

- Free response: Provides narrative description of quality of overall performance.
- Ranking: Ranks quality of worker's total performance against that of coworkers.
- Checklist: Checks statements of desired behavior that are exhibited by worker.
- Graphic rating: Checks numeral to indicate quality of performance of each task.
- Forced choice comparison: Checks statement that best and least describe worker.
- Behaviorally anchored rating scale: Checks weighted job dimensions.

ing, the manager and primary nurses who develop the BARS for the planning dimension of the staff nurse job might give a weight of 9 (highest importance) to constructing a written care plan, and a weight of 1 (lowest importance) to consulting with the clinical nurse specialist to obtain suggestions for nursing interventions.

PROBLEMS IN PERFORMANCE APPRAISAL

To achieve objectivity in evaluating subordinates, a manager must overcome four types of bias: halo effect, horns effect, central tendency error, and self-aggrandizing effect.

Halo effect is the tendency to overrate a person's performance for one of the following reasons. An employee with pleasing personality or strong social skills is likely to receive a higher performance rating than work quality warrants, because the manager unconsciously generalizes level of social performance to quality of clinical performance. When a subordinate has performed well in the past, but not been recently observed, a manager is likely to assume that the employee is still performing well and to give the employee a higher-than-deserved rating. An employee whose performance has been mediocre during the previous year but has recently made a single spectacular performance is likely to receive a higher rating than justified for yearlong performance. An employee who shares the manager's area of clinical expertise or research interest is likely to receive higher-than-deserved ratings, because the manager will look favorably on interests and activities that resemble her or his own.

The horns effect is a tendency to rate an employee lower than performance warrants for one of the following reasons. An employee who has performed at above average level throughout the previous year but committed a serious error a few days before the annual performance evaluation is apt to receive unduly low rating because the recent blunder is paramount in manager's memory during the evaluation conference. An employee whose work has been consistently above average but disagrees openly

with the manager is apt to receive lower-than-deserved rating if the manager interprets disagreement as lack of loyalty. An employee who, despite high-quality performance, fails to meet the manager's standards for dress and behavior is likely to receive unreasonably low ratings, because the manager unconsciously generalizes disapproval of appearance to disapproval of work. An employee whose performance is above average but associates with poor-performing peers may receive unfairly low ratings if the manager judges subordinates by the company they keep (Odiome, 1984).

The central tendency error is the inclination of a manager who does not understand or has not observed a subordinate's activities to rate the worker in the middle of the range for each job dimension, rather than to provide high ratings for some aspects of performance and low ratings for others (Timmreck, 1989). If employees compare notes on specifics of a unit manager's performance appraisals and find that all members of the work group have been rated as average on all dimensions of job performance, they will be likely to discount the importance of the manager's later feedback about the quality of individual and group performance (Huston and Marquis, 1989).

The most serious problem in performance appraisal is the fact that some managers deliberately craft subordinates' ratings to create an image of their own leadership style. Some managers give high ratings to all subordinates to demonstrate their own superior motivational and training abilities; some give low ratings to all subordinates to demonstrate a tough approach toward obtaining maximum employee productivity (Brucks, 1985).

Kikoski and Litterer (1985) claim that the appraisal interview, where the manager sits down with the subordinate to discuss their separate interpretations of the subordinate's performance, is the Achilles' heel of the entire evaluation process. Too often, the performance appraisal interview is not conducted as a dialogue but is a pronouncement. The manager has ar-

MEMO CAPSULE**Problems in Performance Evaluation**

- Halo effect: Overemphasizes a positive event; overrates total performance.
- Horns effect: Overemphasizes a negative event; underrates total performance.
- Central tendency error: Performance is not observed; median rating given for all tasks.
- Self-aggrandizing effect: Rates worker so as to create favorable view of manager.

rived at a conclusion about the quality of the nurse's performance before the interview and uses the interview to notify the nurse of his or her conclusions. According to these experts, the key to a successful performance-appraisal interview is subordinate's "ownership" of the evaluation process. For a staff nurse to feel ownership of her or his evaluation, the manager should observe the following principles in conducting the appraisal interview.

1. Conduct a genuine dialogue on a cognitive-rational level.
2. Stimulate genuine dialogue on an effective, emotional level.
3. Communicate acceptance of the nurse as a person.
4. Indicate that the nurse's behaviors have been accepted (even if not approved).
5. Indicate that the nurse's opinions have been heard and understood.

According to Kikowski and Litterer (1985), managers should be taught to employ the following attending, feedback, paraphrasing, reflecting, and questioning techniques during the performance appraisal interview.

1. Sit facing the subordinate with a slight forward lean of the upper trunk.
2. Maintain eye contact while receiving and sending messages.

3. Use minimal cues to encourage subordinate's expressions of thought and feeling (head nod, murmur of understanding, repetition of key words).
4. Provide clear, concrete, unemotional information about subordinate's work quality.
5. Focus comments on correctable aspects of subordinate's behavior.
6. At intervals throughout the interview, paraphrase the essence of subordinate's previous comments.
7. At intervals throughout the interview, invite subordinate to discuss feelings which she or he is experiencing during the discussion.
8. Use open questions at the beginning of the interview to encourage subordinate to talk freely. Use closed questions near the end of the interview to clarify points of misunderstanding.

There is evidence that feedback about work performance that is given by the supervisor during annual performance appraisal motivates an employee's future performance more strongly than does feedback from self, task, or coworkers (Becker and Klimoski, 1989).

MANAGEMENT BY OBJECTIVES

In the last analysis, it is not the manager but the employee who controls the employee's job behavior, sets work goals, establishes work priorities, and regulates energy expenditure. Consequently, Management by Objectives (MBO) is an effective approach to performance evaluation (Drucker, 1954).

To employ MBO technique, the chief nurse executive must prepare or direct others to prepare a detailed job description for every nursing position in the department. Then, the executive must prepare or direct others to prepare behaviorally oriented performance standards for each nursing position. Each standard should include a precise description of the behavior demon-

strated by an employee who has met each standard.

To use work objectives as a leadership and control technique, a manager would implement the following system. First, the manager and staff nurse would evaluate the nurse's performance since her or his last formal evaluation. The staff nurse job description and associated performance standards would be used as criteria against which to measure job behavior (Henderson, 1984; Latham and Wexley, 1981). Next, the manager and staff nurse would meet to discuss their evaluations. Through give-and-take, the two would reach consensus about superior, acceptable, and unacceptable aspects of the staff nurse's performance. During this meeting, manager and staff nurse would negotiate a few short-term goals for the nurse to pursue during the next six months. For the MBO approach to be successful, it is necessary to link the individual employee's goals with goals of the total organization (Brucks, 1985). At the end of the interview the manager would help the nurse to design a plan for reaching selected goals. Six months later the staff nurse and manager would meet to evaluate the nurse's progress toward established goals. Staff nurse and supervisor would negotiate new goals, set another target date, and make a plan for reaching the new goals. The entire cycle would repeat at six- to twelve-month intervals thereafter (Fain and Sheathelm, 1984).

Following are some performance objectives that were negotiated by a head nurse with her unit manager:

1. During the next six months I will conduct weekly meetings with staff nurses in my unit for the purpose of:
 - a. Interpreting agency policies and procedures
 - b. Soliciting information and suggestions from the staff to improve patient care
 - c. Providing counseling to minimize the ef-

fects of organizational stress on employee morale

2. During the next six months I will schedule unit staff nurses to participate in 12 patient care conferences, rotating responsibility for group leadership among the six professional nurses on the unit.
3. During the next six months I will audit charts of all discharged patients to determine whether each has been given self-care information about the following:
 - a. Medications
 - b. Dietary management
 - c. Wound care
 - d. Activity restrictions
 - e. Special care measures
 - f. Scheduled clinic appointments
4. During the next six months I will write nursing practice standards to guide the unit's nursing personnel in caring for patients with the following problems:
 - a. Nasogastric intubation
 - b. Wound sepsis
 - c. Above-knee amputation
5. During the next six months I will present a one-hour class to unit nursing personnel on each of the following topics:
 - a. Determining a patient's nursing diagnosis on admission
 - b. Writing nursing goals for a geriatric patient admitted for a short hospital stay
 - c. Constructing a written plan for nursing care

The foregoing objectives should be used to evaluate the job performance of a head nurse who developed them, because the objectives describe behaviors that could easily be observed by a mid-level manager. Subjects discussed during weekly staff meetings would be recorded in minutes that could document the achievement of Objective 1. Written reports of nursing care conferences that are used to document staff-development activities for an accreditation agency could document achievement of Objec-

tive 2. Tally sheets recording chart audit findings could document the realization of Objective 3. Records of head nurse's counseling sessions with staff nurses who fail to record predischARGE instruction could document realization of Objective 4. Records of staff nurses' attendance at in-service classes taught by the head nurse would document achievement of Objective 5.

The following are performance objectives negotiated by a staff nurse during conference with the unit head nurse:

1. For each patient on my primary nursing caseload I will perform a physical examination and take a health history during his or her first day of hospitalization.
2. During the next six months I will complete the Basic Rescuer course in CPR
3. During the next six months I will prepare and submit to the Procedure Committee an instruction sheet for patient predischARGE teaching on each of the following topics:
 - a. Foot care for a patient with circulatory impairment of the lower extremities
 - b. Finger-stick method to test blood glucose level
 - c. Preparation and administration of a prescribed dose of insulin
4. During the next six months I will improve my attendance record by:
 - a. Taking no unexcused absences from work
 - b. Reporting for work each day by scheduled duty time
5. During the next six months I will improve my ability to speak and write English by enrolling in an English as a Second Language course

These objectives should be used in evaluating the staff nurse's performance, because each describes behavior that could be observed by the head nurse and documented by the staff nurse. By reviewing charts of patients for whom the nurse had served as primary nurse, the head nurse could determine whether the nurse had promptly performed a physical examination

and health history for all patients in her or his caseload. A photocopy of the nurse's Basic Rescuer certificate would document successful completion of Objective 2. Copies of patient instruction sheets prepared by the staff nurse could be reviewed by the head nurse prior to submission to the Procedure Committee to document Objective 3. The staff nurse's time cards and a computer printout of the total days of sickness, absence, and tardiness for all nursing staff would reveal whether the nurse's attendance had improved. Noticeable improvement in grammar and spelling of the nurse's chart entries or a copy of her college grade report would document completion of a remedial English course.

Usually, employees see evaluation by objectives as less subjective than other approaches to performance evaluation, because the employee has a voice in deciding which aspects of her or his performance will receive major scrutiny. However, limiting performance evaluation to observable and quantifiable behaviors narrows the scope of appraisal, because some aspects of professional job performance (sensitivity to patient needs, cooperation with peers) are not easily visualized and quantified. Furthermore, in some agencies employee-manager negotiated performance goals are deliberately set at a slightly higher level each year to "stretch" employee abilities. When this practice is followed, superior workers may be overstretched and overworked by ever-increasing demands to the point of burnout (Reed and Kroll, 1985).

Some agencies use peer review as one method for evaluating nurses' performance. The ANA defines peer review as a process by which registered nurses who are actively engaged in practice assess and judge the performance of professional peers against predetermined standards (American Nurses' Association, 1983). When this method is used, it is customary for a group representing nurse managers, teachers, and caregivers to determine the activities included in the peer-review process. The customary procedure is for the nurse manager and candidate to independently complete a performance-ap-

praisal form to describe the quality of the nurse's job performance (Fig. 29-1). The candidate prepares a set of written documents for submission to a committee of peers. These materials may include nursing histories and physical examination reports that the nurse has prepared for patients in her or his caseload; a sample of the nurse's documentation of patient progress and response to treatment; a detailed patient case study; and a special clinical project (patient education class, patient support group, test of care equipment). When the peer-review committee has reviewed the evaluation candidate's written materials and self-evaluation, the committee (chaired by the candidate's unit manager) interviews the candidate to obtain further information about issues raised in the documents.

Following the interview the Peer-Review Committee constructs a summary report of the candidate's strengths and weaknesses. Information for this report is drawn from four sources: the candidate's self-evaluation; documented evidence of candidate's abilities to plan, implement, and evaluate patient care; written appraisal of the candidate's performance by the candidate's manager; and peer-review committee's conclusions about the adequacy of the candidate's response to questions from peer-committee members.

The peer-review technique has been effective in encouraging individual accountability for professional development and group accountability for improving overall care quality in the nursing unit (Mann et al., 1990). In addition, peer review supports the decentralization of management and a professional model of practice. When managers have a broad span of control, the use of additional sources of evaluation data ensure greater objectivity and accuracy in evaluation of nurses' job performance.

LEGAL IMPLICATIONS OF PERFORMANCE APPRAISAL

A nurse manager must take care to avoid violating federal laws that bear on performance

appraisal. Federal legislation is concerned with the impact of the performance-appraisal process on employee status in the organization (Latham and Wexley, 1981). The Equal Pay Act of 1963 (forbids paying workers of one sex at a different rate from workers of the other sex for the same work), the Civil Rights Act of 1964 (forbids discrimination on the basis of race, color, religion, sex, or national origin), and the Age Discrimination in Employment Act of 1967 (forbids discrimination against persons 40 to 70 years of age) all require an employer to document the quality of employee performance before making employment decisions that would affect the employee's organizational status. The federal government defines employment practices as including selection, training, transfer, retention, and promotion (Burchett and De Meuse, 1985).

The Equal Employment Opportunity Commission (EEOC) is the federal agency that is responsible for administering the Civil Rights Act of 1964. The EEOC requires that the content of a test used to make employment decisions be job related. A "test" is defined as any paper and pencil device or performance measure that sorts individuals according to their relative capability to perform important job functions. Therefore, a clinical performance evaluation device (rating scale, checklist, forced choice comparison) is a performance "test" and must accurately reflect job responsibilities (Henderson, 1984). To avoid litigation, a manager should ensure that tools used to evaluate nurses' clinical performance are regularly revised to reflect the evolutionary changes that occur in responsibilities of selected nursing positions.

When performance-appraisal information is used to determine merit pay increase, promotion, participation in training programs, and layoff, courts consider that performance appraisals are used in employee-selection activity and, as such, fall under the federal government's Uniform Guidelines on Employee Selection Procedures (Stevens, 1978). These guidelines specify that employee-performance evaluations

Hospital XYZ
Staff Nurse Performance Evaluation

Record overall performance level for each activity by checking the appropriate column

	Always	Usually	Occasionally	Never
A Patient Assessment				
1. Records complete health history on admission				
2. Records findings of complete physical assessment on admission.				
3. Records appropriate nursing diagnoses, based on assessment data.				
4. Examines patient and laboratory data daily to update nursing diagnoses.				
B Care Planning				
1. Consults patient and significant other to identify and prioritize care and teaching needs.				
2. Constructs patient outcome goals, based on needs and priorities.				
3. Designs nursing interventions to achieve outcome goals				
4. Communicates goals and related nursing orders to nursing staff members.				
C Implementation				
1. Performs or directs others in planned physical care measures.				
2. Performs or directs others in planned educational interventions				
3. Guides auxiliary staff in implementing assigned care measures.				
4. Provides needed psychological support.				
D Evaluation				
1. Measures patient's achievement of outcome goals				
2. Measures patient's ability for self care.				
3. Measures significant other's mastery of caregiving skills.				
4. Compares costs of alternative supplies, equipment, or personnel for patient care.				
E Education				
1. Orients newly hired nurses to unit.				
2. Serves as preceptor for undergraduate nursing students.				

Figure 29-1 Sample performance evaluation

F Research

1. Notifies head nurse or others of researchable clinical problems.
2. Volunteers to gather data for others' studies.
3. Implements research findings to improve clinical practice.
4. Designs simple studies for investigating problems found through quality monitoring activity.
5. Informs coworkers of research reports relating to unit problems.

Additional Comments.

Signature: _____

(SUPERVISOR/EVALUATOR)

THIS EVALUATION WAS DISCUSSED WITH ME BY MY SUPERVISOR

(NURSE)

Figure 29-1 Continued

should concentrate on job-specific behaviors, rather than potentially relevant traits and characteristics. Court decisions have repeatedly condemned use of performance-evaluation tools that were not developed from systematic job analysis and evaluation systems where performance standards were not clearly communicated to employees (Burchett and De Meuse, 1985).

When a health agency implements a new system for employee evaluation, administrators should analyze the legal ramifications of the system's effects. Recently, courts have taken the view that, when an employer establishes a performance-appraisal system, he or she establishes a contract with employees to use the system for its intended purpose (Romberg, 1986). Consequently, if the *Employee Handbook* states that salary increases will be awarded according to merit and that merit will be determined through

formal performance appraisal, an employee whose performance is not evaluated according to the appraisal-system policy or whose salary increase is not proportionate to appraised performance can claim breach of contract by the employer.

SUMMARY

To obtain as much high-quality work as possible from subordinates, a manager must ensure that each employee knows what behavior is expected of her or him; how much time is available to develop needed skill and speed; what assistance is available to meet job expectations; and when and by whom her or his job performance will be assessed. These concerns provide the basic requirements for an effective performance-appraisal system for nursing personnel. Nurse managers should write detailed job descriptions for all categories of nursing personnel, design a

RESEARCH BRIEF

Variables Related to Nurse Performance

Purpose: Explore data from a larger study to determine which variables are related to nurses' job performance.

Sample: Three hundred twenty nurses who joined a large university over 16 months.

Method: Each subject was evaluated by the head nurse at the end of one year of employment, using two tools. The 6D Scale of Nursing Performance consists of 52 grouped into 6 scales: leadership; critical care; teaching/collaboration; planning/evaluation; interpersonal relations; and professional development. The hospital's staff nurse evaluation form consisted of 49 items in 5 categories: clinical practice; administration; education; research; professional responsibility.

Findings: Using means of the two tools, subjects were divided into high, medium, and poor performers. Top performers had more education, greater career commitment, and more feedback from supervisors than poor performers. Career commitment correlated with leadership, teaching/collaboration, and interpersonal relations subscales. Continuing education correlated with

critical care, teaching/collaboration, planning/evaluation, and professional development subscales. Feedback from supervisor correlated with teaching/collaboration, planning/evaluation, interpersonal relations, and professional development subscales. Years of nursing experience correlated with critical care, leadership, and planning/evaluation. Nurse-patient ratio, care-delivery system, flexible scheduling had no relation to performance.

Application: Small correlations were found between numerous variables and nurses' work performance. Thus, a manager might improve performance of staff nurses by modifying any of several agency, job, and employee variables. To identify the effects of some variables, repeated measurement is needed. For example, continuing education measured at 6 months was related to performance at 12 months; but continuing education at 12 months was unrelated to contemporaneous performance. Apparently, time is needed to consolidate new learning before performance changes occur.

Source: McCloskey, L., and McCann, B. Variables related to nurse performance. *Image: the Journal of Nursing Scholarship* 20(4):203-207, 1988.

performance-evaluation system that supports employee development, design evaluation devices to be used in the process, and execute regular evaluations of each subordinate's work. To fulfill these responsibilities, a manager should acquire skill in job analysis and evaluation, performance measurement, and direct and indirect interviewing.

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Discipline

*Conduct is three quarters of our life and its largest
concern*

MATTHEW ARNOLD

OBJECTIVES

After reading this chapter, you should be able to:

1. Describe the legal and organizational bases for a nurse manager's right to discipline a subordinate for unsatisfactory behavior.
2. Enumerate four employee behaviors that are considered "just cause" for discipline.
3. List six steps of progressive discipline in proper sequence, and describe the nurse manager's responsibility at each step.
4. Identify at least four bases on which a manager's disciplinary action is apt to be reversed by an organizational superior or labor arbitrator.

One method by which a nurse manager can control subordinates' behavior is to invoke official disciplinary procedure. Discipline can be the self-control by which an employee brings her or his behavior into agreement with the agency's official behavior code, or it can be a managerial action to enforce employee compliance with agency rules and regulations.

MANAGER'S RIGHT TO DISCIPLINE

A manager's right to discipline a subordinate derives from agency rules and regulations, the agency's official code of conduct, behavioral

guidelines included in the employee handbook, and collective bargaining agreements between the agency and employee unions. Most union contracts permit managers to discipline an employee for just cause (Levenstein, 1982) and provide an official grievance procedure by which an employee can appeal a superior's disciplinary action. The majority of grievances that unions appeal to an arbitrator involve disciplinary actions (Kjervik, 1984). In many instances, employees feel that discipline was uncalled for or are offended by the type of discipline administered.

EMPLOYEE CODE OF CONDUCT

The basic prerequisite for effective discipline is employee awareness of agency rules and regulations governing employee behavior. Behavior rules should be written in clear and concise language, incorporated in a handbook given to new employees during induction (Rutkowski and Rutkowski, 1984), posted in each work unit, and discussed with employees by the manager of each work unit. Following are typical behavioral rules for a health agency. Infraction of these rules should precipitate disciplinary action by the employee's manager: The employee shall not

1. Absent herself or himself from a scheduled assignment without the manager's approval.
2. Physically or verbally abuse a patient, visitor, or agency employee.
3. Transmit confidential information about patients or agency affairs to unauthorized persons.
4. Appropriate patients' belongings or agency property for personal use.
5. Refuse to follow the directions of a duly authorized superior.
6. Intentionally falsify organizational records.
7. Sleep during duty hours.
8. Be under the influence of alcohol or unprescribed drugs while on agency premises.
9. Carry a weapon while on agency premises.

A nurse manager should inform subordinates of behavior rules and explain the rationale for each rule. The manager should encourage employees to discuss the application of each behavior rule to specific situations in the nursing unit. Discussing behavior rules with members of the primary work group predisposes an employee to identify with agency goals and accept the necessity for behavioral restrictions. Internalization of agency rules fosters self-discipline, which is a more powerful form of control than managerial discipline.

DISCIPLINARY APPROACH

Experts differentiate between traditional and developmental approaches to employee discipline. The traditional approach emphasizes punishment for undesirable behaviors; the developmental approach emphasizes discipline as a shaper of desirable behavior. According to Odiorne (1984), the purposes of traditional discipline are to implement punishment for sin, enforce conformity to custom, and strengthen authority of the old over the young. Consequently, in the traditional approach, discipline is always applied by superiors to subordinates, the severity of punishment is designed to be proportional to the severity of the offense, and when no single individual admits to the violation, the whole group is punished to motivate group members to identify the violator or punish him or her themselves.

The purpose of developmental discipline is to shape behavior by providing favorable consequences for the right behavior and unfavorable consequences for the wrong behavior. The developmental approach to discipline is characterized by avoidance of physical punishment, protection of the rights of the accused, and replacement of arbitrary individual judgments with group judgments of guilt. Furthermore, Odiorne (1984) claims that a developmental approach to discipline allows an exceptional performer who achieves exceptional results to be treated with exceptional tolerance. Often, the traditional approach to discipline is used in bureaucratic organizations under an authoritarian style of leadership, and the developmental approach to discipline is used in innovative, matrix-type organizations under a democratic or participative style of leadership.

PRINCIPLES OF DISCIPLINE

The nurse manager's purpose for imposing disciplinary action should be to correct, rather than to punish, a wayward employee (Beletz, 1986). Certain psychological principles should be followed in correcting unacceptable behavior. First, following rule infraction by an em-

ployee, discipline should be administered promptly, privately, thoughtfully, and consistently.

Second, for all but the most severe offenses, discipline should be progressive and preceded by counseling. On the first occasion that a nurse speaks disrespectfully or threateningly to a patient, she or he should be taken aside by the

manager for a friendly, informal talk that includes review of the official code of conduct (Fig. 30-1), identification of the manner in which the nurse has violated the code, and advice about improving communication with patients. On the second occasion that the nurse berates a patient, the manager should give the nurse an oral reprimand, which is a firm re-

Hospital XYZ Code of Conduct

Employees are expected to:

1. Arrive at work properly groomed and garbed and ready to work at scheduled time.
2. Notify unit supervisor at least two hours in advance when unable to report for duty because of illness.
3. On returning to work following illness, bring documentation of improved health status from personal or clinic physician.
4. Obtain the supervisor's permission in advance for any deviation from scheduled work hours.
5. Record time of reporting on and off duty by punching the time clock.
6. Receive report from departing workers when reporting on duty.
7. Document all work in prescribed fashion, as soon as completed, i.e., patients' conditions, procedures completed, supplies delivered, etc.
8. Refrain from leaving work post without permission of supervisor.
9. Report status of work assignment and condition of work setting to supervisor at end of work shift.
10. Read and adhere to published policies (Hospital Policy Manual) regarding required health, safety, security, and fire precautions.
11. Maintain confidentiality of patient records and patient information.
12. Refrain from falsifying any hospital record or obliterating information from any hospital record.
13. Refrain from possession of, use of, or influence of alcohol and nonprescription drugs while on hospital premises.
14. Refrain from appropriating property belonging to the hospital, other employees, patients, and visitors.
15. Refrain from horseplay or mischievous behavior on hospital property.
16. Avoid verbally or physically harassing patients, visitors, or other employees.
17. Refrain from carrying a weapon of any type on hospital premises, except for security guard and city/state police who are authorized to carry a gun or club.
18. Refrain from smoking funds or selling items of any type on hospital premises, unless approved by hospital administrator.
19. Avoid intentional damage to hospital property.
20. Refrain from sleeping on duty.
21. Refrain from sexual harassment of patients, visitors, or other employees.

Figure 30-1 Sample code of conduct.

minder that the nurse's behavior departs from expected standard and that repetition of the undesirable behavior will lead to steps of progressive discipline, up to and including discharge.

If the nurse persists in verbally mistreating patients, the manager should administer a written reprimand, which is formal written warning that the nurse must improve communications with patients and that failure to improve will culminate in steps of progressive discipline up to and including discharge. One copy of the written reprimand should be given to the nurse, and one copy should be filed in her or his official personnel file. The written reprimand should include a clear description of the nurse's unacceptable behavior and an explanation of consequences to be expected if the behavior is repeated. If the nurse continues to verbally abuse patients, despite counseling and reprimands, the nurse should be suspended for several days or weeks. Finally, if efforts to correct, mold, and perfect the nurse's behavior prove unsuccessful, she or he should be discharged (Binger and Mailhot, 1986).

Third, disciplinary action may have serious and long term consequences for the employee, such as loss of income and damage to professional reputation. Therefore, a manager should use caution in implementing disciplinary procedures. Before a verbal or written reprimand is given, and especially before suspension or discharge is imposed, the manager should investigate the episode of undesirable behavior to ensure that an agency rule has been broken, the nurse was informed of the rule, the nurse realized that she or he was violating the rule, and that there were no extenuating circumstances to justify violation.

To be effective, discipline should be administered, not as punishment, but as aversive conditioning. People refrain from touching a hot stove to avoid sure and unpleasant consequences. Likewise, most employees comply with an agency's official behavior code, when forbidden behaviors are clearly described and unpleasant consequences (loss of privilege, pay, or

MEMO CAPSULE

Principles of Effective Discipline

- Discipline is administered promptly following rule infraction
- Discipline is progressive in nature and preceded by counseling.
- Situation is investigated to ensure that discipline is warranted.

Employee broke an agency rule

Employee was aware of the rule.

Employee realized that she or he was breaking the rule.

There were no extenuating circumstances to justify the violation

position) are provided quickly, equitably, and unemotionally to all offenders (Schermerhorn, 1984).

DEALING WITH DISCIPLINARY PROBLEMS

Disciplinary action may be ineffective because of a methodological weakness or of procedural omissions by the manager. Methodological problems usually result from lack of interviewing skill or improper documentation of the disciplinary interview. Procedural problems result from the failure to apply discipline in a timely fashion and to follow due process

Disciplinary Conference

Both directive and nondirective interview techniques should be used in conducting a disciplinary conference. It is difficult and unpleasant to give criticism to another. It is damaging to employees' self-esteem to receive criticism from an authority figure. Therefore, a disciplinary conference is anxiety provoking for both supervisor and employee. To minimize stress during a disciplinary interview, the session should be short, simple, and to the point. The manager is responsible for ensuring the success of the interchange, so she or he should maintain control of the conversation, focus it on employee actions rather than motives, and main-

tain objectivity when discussing the rule violation and the proposed disciplinary action. To guide the discussion, the manager should begin with a clear statement of the broken behavior rule, describe corrective actions expected by the employee, specify the time allowed the nurse to remedy shortcomings, and mention further discipline to be administered if prescribed behavior changes do not occur. Philosophical discussion, exhortation, threat, and pleading have no place in a disciplinary conference. The disciplinary conference should be documented in detail as a basis for later steps in progressive discipline, should they become necessary.

MEMO CAPSULE

Disciplinary Conference

- Description of the specific rule broken by the employee
- Action that employee should take to correct the problem
- Amount of time allowed the employee to correct his or her behavior
- Further discipline to result if specified behavior change not made
- Disciplinary conference documented and included in employment record

Disciplinary Letter

Even when a disciplinary conference is skillfully conducted, the employee's anxiety during the interview may block perception of the painful feedback offered by the manager. To decrease misunderstanding between conferees and clarify expectations of both, the manager should send a letter to the employee immediately after the conference, documenting the interview content from the manager's viewpoint (Belerz, 1986). The letter should parallel the outline followed by the manager in conducting the interview, explaining the employee's rule violation, reason for the manager's concern, behavioral

change(s) expected of the employee, plan of action for effecting desired behavior change, employee's comments about the problem and promised behavior change, and consequences if undesirable behavior persists. A copy of the letter documenting the disciplinary interview should be retained in the employee's personnel file to assess the adequacy of the employee's subsequent behavior change, to determine the need for later discipline, or to provide evidence during subsequent grievance or arbitration.

Errors in Disciplining Employees

Proper disciplinary procedure requires that corrective action be taken as soon as possible following rule infraction, while allowing time for adequate investigation of the problem incident. Reluctance to criticize a subordinate's performance or inability to deal with employee hostility causes some managers to avoid, delay, or dilute discipline, with serious consequences for worker productivity.

Common managerial failures in administering discipline to nursing personnel include ignoring behavioral problems in the hope that employee performance will improve; hoarding grievances about an employee's performance until cumulative irritations cause a blowup between manager and employee; administering criticism in such sweetened form that the employee does not recognize it as criticism; administering general rather than specific criticism; and implementing discipline unfairly because of an erroneous interpretation of circumstances.

Failure to follow due process in disciplinary procedures results in unfair, inappropriate, or ineffectual disciplinary actions. To apply due process in disciplinary actions the manager must ensure that:

1. There is an agency rule or standard that governs the behavior under consideration.
2. The employee was aware of the rule or standard governing her or his problem behavior.

3. The employee did, in fact, violate the agency rule or standard.
4. The penalty imposed is appropriate to the rule or standard violated (Boncarosky, 1979).

Frequently, a manager's disciplinary action is "grieved" by the employee, with support from the employee's union representative (Fay and Morrill, 1985). The most common reasons for grieving and reversing a disciplinary action are failure to substantiate charges; administration of discipline in an untimely manner; unsuitability of discipline; and failure to discipline consistently. To prevent reversal of disciplinary decisions by the agency's labor representative or outside arbitrator, a manager must substantiate a charge of rule violation by presenting objective evidence of violation, presenting testimony of reliable witnesses, or obtaining the employee's admission of wrongdoing.

To be timely, discipline must be administered as soon as possible after an employee's error or omission or commission. Prompt application of discipline establishes a logical relationship between the employee's offensive behavior and the resulting corrective action. To avoid applying discipline precipitously or inappropriately, a manager must allow time to thoroughly investigate a presumed offense before providing correction. However, no more than two or three days should elapse between the unacceptable behavior and imposition of discipline. If the employee's misdeed is so serious that her or his presence in the unit threatens patient safety, the employee should be temporarily suspended from duty pending full investigation of the incident.

In the interest of justice, a manager must ensure that a disciplinary action is suitable to the offense that provoked it. Few rule violations are serious enough to warrant firing an employee. Employee discharge is a harsh punishment, because it temporarily deprives an individual of livelihood and damages professional reputation. Firing an employee is also likely to demoralize

MEMO CAPSULE

Errors in Discipline

- Delay in administering discipline
- Ignoring rule violation in hope that it is an isolated event
- Accumulation of rule violations, causing irritated manager to "blow up"
- Administering sweetened discipline
- Failure to administer progressively severe sanctions
- Failure to document disciplinary actions accurately
- Failure to act within time limits set by grievance procedure
- Imposing discipline disproportionate to the seriousness of the offense
- Disciplining inconsistently

peer workers, because they identify with the beleaguered employee and interpret the manager's action as unduly harsh or vengeful.

To be effective, discipline must be administered consistently. The prescribed disciplinary action must be meted out to every employee following every instance of a forbidden behavior. When a manager disciplines one employee for an offense that the manager ignores in another, the former may grieve selective, unfair rule enforcement. When a worker repeatedly engages in a forbidden behavior that is sometimes ignored and sometimes provokes discipline, the manager loses credibility, the offender loses trust, and the work group is demoralized.

A manager who interprets an employee's rule violation as opportunity for teaching or learning is unlikely to employ excessive discipline. To prevent nurse managers from imposing too-severe punishment, the official disciplinary procedure of most agencies provides that a manager has authority to give oral and written reprimands but must confer with a divisional director, personnel director, or vice-president of nursing before suspending or discharging an employee. In this way, a middle or top manager

with experience in labor relations can monitor those managerial decisions that lead to the most severe forms of discipline.

Nurse managers should implement the last step in the progressive discipline process (termination) with extreme care to avoid claims of "wrongful discharge." Wrongful discharge is a legal claim that is brought by a nonunion or "at will" employee who charges that her or his termination violates the employee's contractual rights or the employer's legal duty. Until recently, the employment relationship was subject to the will of either party. Except for collective bargaining agreements and fair employment practice laws, the majority of employees could be fired at the employer's will (Keppler, 1990). The "at will" rule allows an employer to terminate an employee for good cause, bad cause, or no cause at all. If an employment contract does not identify a specific period of employment and does not specify behaviors that are considered grounds for dismissal, the "at will" rule establishes the presumption that the employee can be fired at the will of the employer.

However, if the employer provides the employee with an Employee Manual that states that an employee may be dismissed "for cause" and lists specific causes for dismissal, such as late arrival for work, working under the influence of alcohol or drugs, and appropriating patients' or employer's property for personal use, an "at will" contract is presumed *not* to exist. Instead, it is assumed that the employee will not be terminated unless she or he displays the forbidden behaviors. In the 1980s many nonunion ex-employees sued previous employers for wrongfully terminating the employment contract implied by language in the employment application, an employee handbook, or a personnel policy bulletin.

Some companies added "at will" disclaimers to their Employee Bulletin to avoid claims of wrongful discharge, but such action engenders employee suspicion and hostility and sensitizes nonunion employees to their need for due pro-

cess in employment actions. Brooke (1990) claims that organizations can reduce the risk of wrongful discharge claims by enunciating extremely specific policies for employee discharge, that identify nondismissible behavior, such as grievance filing, as well as grounds for dismissal. She advises that employee handbooks be scheduled to expire on a specific date, cautioning that administrators should avoid adding new policies to the existing handbook, as newer policies are inevitably inconsistent with older policies. Finally, administrators should establish a completely fair and impartial dispute-resolving system in which procedural due process is followed and the employee is given clear notice of rule infraction and opportunity for a fair hearing before an impartial third party. The impartial third party may be a higher-level manager, the CEO, a panel composed of peer workers and management representatives or an external arbitrator (Keppler, 1990).

Positive Discipline

In differentiating two types of leadership, Burns (1978) paved the way for a new approach to employee discipline. Burns defined transactional leaders as those who motivate followers to behave in desired ways by offering rewards that appeal to followers' self-interests. He claimed that transformational leaders motivate followers to act out of commitment to a higher ideal, rather than from self interest. Managers in industry and health care have stimulated employees to aim for the "higher ideal" of organizational mission by employing what is known as "positive discipline," or discipline without punishment (Harvey, 1982; Steines, 1982). Positive discipline differs from traditional discipline in that the former is motivational, the latter punitive (Haddock, 1989). Positive discipline is based on the assumption that an employee with self-respect, respect for authority, and interest in the job will adhere to high-quality work standards (Holder, 1989). It is further assumed that, when an interested, respectful, and self-respect-

ing worker temporarily strays from his or her usually high standards, a friendly reminder is enough to redirect his or her efforts in the desired direction (Rogers et al., 1990).

Thus, positive discipline consists of the following steps:

1. When unsatisfactory performance is first noted, the worker is given a friendly oral reminder that, as an accepted member of the organization, he or she has voluntarily assumed personal responsibility for maintaining acceptable standards of worker performance and behavior.
2. If the inappropriate performance is repeated, the manager provides the worker with a written statement of the problem and goals to which the manager and employee are committed. Manager and worker develop an action plan to close the gap between the employee's expected and actual behavior.
3. If the manager's reminders and the discussion fail to achieve the desired change in behavior, the employee is given a paid one-day decision leave, during which she or he is to reflect on her or his commitment to the organization, its mission, policies, and standards.
4. On return from the paid decision leave, the employee is expected to submit a written statement of decision to remain and change behavior or leave the organization. The employee is told that failure to carry out the stated commitment will result in termination.

Organizations that have implemented positive discipline have noted a subsequent decrease in absences, dismissals, disciplinary actions, grievances, and arbitration, along with improvement of employee morale (Haddock, 1989; Rogers et al., 1990). One health organization that adopted a nonpunitive approach to employee discipline experienced a 30-percent reduction in employee turnover (Harvey, 1982).

MEMO CAPSULE

Positive Discipline (Motivational)

- Friendly oral reminder to employee on first violation
- For repeated violation, written statement of problem and work goals to employee
- Development by manager and employee of action plan to improve employee's behavior
- Repeat violation, one-day paid leave to reflect on commitment to agency goals
- Submission by employee of written statement of intent to stay and improve, or leave agency
- Employee notified that failure to meet commitment will result in termination

SUMMARY

On being hired to fill a particular job, an employee tacitly agrees to assume the tasks and responsibilities for that position and take direction from her or his immediate superior in organization hierarchy. Thus, the employee's job description, official agency policies, and union labor contracts (if any) establish a manager's right and obligation to discipline employees for unsatisfactory work performance. The purpose for discipline is to improve job performance. Discipline should be a serial process, in which the first step is informal conversation between manager and employee, where the former notifies the latter that she or he has broken the employee code of conduct or other agency rule and advises the subordinate how to improve performance. If unsatisfactory performance persists, the manager should give the employee a verbal reprimand, then a written reprimand, indicating that if the undesired behavior continues, the employee will be subject to progressive discipline, up to and including discharge. If the unacceptable behavior continues, the manager should suspend the employee from work with pay for a short period, then, if necessary, without pay for a longer period. If despite serial

RESEARCH BRIEF

Attitudes and Perceptions of Impaired Nurses

Theory: Rogers' Theory of Unitary Man.

Purpose: Determine the attitudes of recovering nurses toward external control, employment in nursing systems, and peer groups.

Subjects: Fourteen registered nurses, previously impaired by substance abuse, now attending weekly meetings of Philadelphia Impaired Nurse Group, as part of recovery.

Method: A 20-item Likert-style questionnaire was administered to subjects at the end of weekly meetings of the Impaired Nurses group. "Strongly agree" positive statements and "Strongly disagree" negative statements were scored "5"; alternative responses were scored in stepwise decrements. Item scores were summed to yield a score for the total questionnaire.

Findings: All respondents believed they could recover from substance abuse and become effective nurses. All said attending support group meetings had renewed their self-confidence about nursing abilities. The majority said nurse managers wouldn't confront a nurse about sus-

pected substance abuse but would terminate the nurse for "some other reason." Ninety-three percent felt that a recovering nurse could work effectively in a setting where narcotics are kept. Only 7 percent believed the State Board of Nurse Examiners should be notified by hospital management about a nurse being suspected of substance abuse. Twenty-eight percent said impaired nurses should not inform potential employers of their illness, because they would not be hired.

Applications: Both questionnaire responses and write-in comments revealed the need for earlier diagnosis and treatment of impaired nurses by professional peers and supervisors. Nurse managers may be reluctant to invest additional agency resources to rehabilitate an employee whose health problem has already compromised nursing operations and care quality. According to one respondent, "administrators/head nurses need more education about substance abuse, so they can help, not punish, their fellow workers."

Source: Shatter, S. Attitudes and perceptions held by impaired nurses. *Nursing Management* 8(4):46-51, 1988.

warnings, counseling, and remedial instruction, the employee fails to perform as directed, she or he should be terminated. All steps in the disciplinary process should be thoughtfully and fairly undertaken and should be documented in detail so the manager's decisions will be upheld if the employee grieves the disciplinary action.

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Law

Reason is the life of the law

SIR EDWARD COKE

OBJECTIVES

After reading this chapter, you should be able to.

1. Cite one example of statutory law, one example of case law, and one example of administrative law that governs nursing practice.
2. Enumerate three requirements for nursing licensure that are specified by statute in most states.
3. Explain how Title VII of the Civil Rights Act of 1964 relates to the hiring of staff nurses.
4. Explain two conditions that must be met for a nurse claimant to obtain compensation under a state's Workmen's Compensation law.
5. Explain what assertions must be proved by a claimant to substantiate a charge of negligence by a health care provider.
6. Explain the criterion that must be satisfied for a patient's consent for a special treatment to be legally effective.

Nurse leaders are responsible for adhering to federal, state, and local laws while managing the affairs of patients and employees. Law is a system of principles and processes by which members of a society resolve problems and disputes without resorting to physical force (Cazalas, 1978). American law can be divided into civil law and criminal law. Civil law includes rules and regulations that specify the required course of action to be followed by an

individual in business and social relationships with others. Criminal law includes rules forbidding conduct that is injurious to public order and specifying punishments to be administered to individuals who exhibit injurious conduct (Klimon, 1985).

ORIGINS OF LAW

Laws originate from three sources. Statutory laws are enactments of federal and state legis-

lative bodies. Common law is a body of legal principles that has evolved from court decisions. Administrative law consists of the rules and regulations established by administrative agencies that have been appointed by the executive branch of government (president or governor). New statutes are continually being enacted, and new court decisions tend to modify older legal principles. Therefore, the body of American law is constantly changing. Nurse managers should attend legal seminars and read published law reports to keep up-to-date about legal controls affecting nursing management and practice.

MEMO CAPSULE

Sources of Law

- Statutes, for example, 1991 Patient Self Determination Act
- Court decisions, for example, principle of "Respondeat Superior"
- Administrative regulations, for example, rules of the State Department of Nurse Registration

Illness and injury render a person unusually dependent on caregivers. For the most part, institutional caregivers are not personally known to the patient. Of all health workers, nurses have most frequent and prolonged contact with the patient and his or her significant others and as such are most often in a position to intervene protectively on the patient's behalf. Most nursing activities are characterized by intimate touching, critical judgment, skillful manipulation, and protective vigilance. Ignorance, carelessness, or malice would render a nurse's ministrations ineffective or harmful. Consequently, nursing practice is regulated by laws that protect patients against deliberate or inadvertent injury by a nurse.

Laws governing nursing practice and nursing management can be divided into laws affecting

the nurse as an employee, laws that specify the nurse's responsibilities toward patients, laws that regulate a nurse's relationships with physicians, laws that specify the nurse's duty to protect the public, and laws that specify the nurse's duties for recordkeeping and reporting.

THE NURSE AS EMPLOYEE

Licensure

Licensure is the process by which a competent authority grants permission for a qualified individual to offer her or his skills and knowledge to the public in a particular jurisdiction where such practice would be unlawful without a license (Creighton, 1981). To practice nursing legally, a nurse must possess a valid and current license from the appropriate agency in the state where the nurse is employed. Licensure laws may be permissive or mandatory. However, there is a pronounced trend toward compulsory licensure of professional and practical nurses. Where licensure is mandatory, unlicensed individuals are prohibited from practicing the occupation. When licensure is voluntary, unlicensed individuals are denied use of the protected title but are not prevented from performing work similar to that of persons licensed to use the protected title.

The primary purpose of a licensure law is to protect the public from injury by unqualified practitioners through enforcement of minimum practice standards. Licensure laws vary from state to state, but most laws governing nursing licensure include sections that specify licensing board composition and responsibilities, definition of the profession; personal, educational, and evaluational requirements for licensure; testing procedures for determining proficiency; licensing procedures for persons qualified to practice in other states; provisions for license suspension or revocation; and penalties for practicing without a license (Kelly, 1977).

Usually, members of a nursing licensure board are appointed by the governor from a list of candidates submitted by the professional and practical nursing organizations. To ensure that

the nursing licensing board is responsive to public needs, it is customary for the board to include representatives of the medical and educational communities and the general public.

Definition of nursing in nursing licensure acts

The definition of nursing included in most nursing acts is sufficiently generalized that each agency or employer must establish clear guidelines to delineate functions and activities that nurses may perform during employment. The ANA has provided the following definition to serve as model for the definition of professional nursing in the nurse practice acts of several states:

Professional nursing practice encompasses the full scope of nursing practice and includes all its specialties and consists of application of nursing theory to the development, implementation, and evaluation of plans of nursing care for individuals, families, and communities. Professional nursing practice requires substantial knowledge of nursing theory and related scientific, behavioral, and humanistic disciplines. Professional nursing practice includes, but is not limited to

1. Assessment, diagnosis, planning, intervention, and evaluation of human responses to health or illness
2. The provision of direct nursing care to individuals to restore optimum function or to achieve a dignified death
3. The procurement, coordination, and management of essential client resources
4. The provision of health counseling and education
5. The establishment of standards of practice for nursing care in all settings, including the development of nursing policies, procedures, and protocols for a specific setting
6. The direction of nursing practice, including delegation to those practicing technical nursing
7. The supervision of those who assist in the practice of nursing
8. Collaboration with other independently licensed health care professionals in case finding and the clinical management and ex-

cution of intervention as identified to be appropriate in a plan of care; and

9. The administration of medication and treatments as prescribed by those professionals qualified to prescribe under the provision of (*cite state statute(s)*). (American Nurses' Association, 1990).

As a consequence of scientific advance and increased demand for health care, functions that were initially the exclusive province of physicians have been delegated to nurses (Cushing, 1986; O'Neill, 1984). Because nursing is vaguely defined in most nurse practice acts, it may be difficult to determine whether a specific diagnostic or treatment procedure falls within the realm of medical or nursing practice. When a nurse is uncertain about the legality of performing a procedure that has been delegated by a physician, she or he should ask the state's attorney to determine whether the activity in question falls within nursing as defined by the state's nurse practice act. In several states the nurse practice act is being revised to expand the nursing role to include physical assessment, diagnosis, prescription writing, minor surgery, and health teaching. Recently, the number of recorded violations of state nurse practice acts have increased because of growing consumerism and "duty to report violation" requirements of several practice acts. Murphy and Connell (1987) found that in 100 percent of violation reports examined, nurses were charged with unprofessional conduct of two types: incompetence or substance abuse. The majority of offenders were associate degree graduates, were divorced or separated, and were employed in medical-surgical nursing units.

Requirements for licensure

Most nursing statutes specify the following personal characteristics as requirements for nursing licensure: Minimum age of 21 years, U.S. citizenship or formal declaration of intent to acquire citizenship, and demonstration of good moral character (Cazalas, 1978). In all states a specified interval of formal vocational

training in a state-approved educational program is required for nursing licensure. The licensure law of some states authorizes substitution of suitable work experience for some portion of the prescribed education program. In every state the individual must receive a satisfactory score on a standardized examination to qualify for licensure. In most states the examination is a paper-and-pencil test, but a few states include an oral and practical examination as well.

Each state provides for licensing of nurses with out-of-state licenses through one or more of the following methods: reciprocity, endorsement, waiver, or examination. When the initial licensing requirements of two states are similar, the two jurisdictions may reach agreement whereby each extends reciprocal recognition to licensees of the other. When a nursing licensure board determines that an out-of-state nurse's qualifications are equivalent to their own state requirements at the time of the nurse's initial licensure and that the qualifying examination taken by the nurse is comparable to their own of the same date, the state may license the out-of-state nurse by endorsing the license granted elsewhere. A few states do not recognize out-of-state licensees and require all applicants to pass the regular standardized examination to qualify for licensure. Some licensure laws provide that an applicant who lacks regular requirements for licensure but possesses equivalent qualifications may have certain educational, experiential, or examination requirements waived (Cazalas, 1978).

In most states the State Board Test Pool Examination is administered twice a year. Most nursing statutes permit a graduate of a state-approved nursing program to practice as a "graduate" nurse under qualified supervision for six months to one year after completing the basic nursing program and before receiving licensure test results. Until a new graduate has passed the licensure examination, the employer cannot be certain that she or he possesses enough knowledge for safe practice. The man-

ager must refrain from assigning an unlicensed graduate nurse to "charge" nurse responsibility and must provide continuous counseling and supervision of the neophyte until licensure is obtained (Creighton, 1978d).

Suspension and revocation of license

The state agency responsible for licensing professional and practical nurses has power to suspend or revoke the license of any nursing practitioner who violates specified norms of conduct. Suspension of a nurse's license is the temporary denial of the right to practice nursing. Revocation of license is the permanent withdrawal of permission to practice nursing. Usually, licensure suspension and revocation are administrative proceedings, rather than judicial proceedings, and do not carry criminal sanctions, although due process is maintained during the proceedings (Cazalas, 1978). Most nursing acts decree that the nursing license can be revoked if obtained through fraud or if the practitioner is found guilty of gross immorality, illegal activity, or malpractice. Malpractice is negligence or carelessness by professional personnel. Negligence is carelessness or failure to act as an ordinarily prudent person would act under the same circumstances (Fiesta, 1983).

Employees' Rights

Nurses as a group are becoming more assertive. Consequently, individual nurses are begin-

MEMO CAPSULE

Content of Nurse Licensure Law

- Licensing board: Composition and responsibilities
- Personal, educational, evaluative requirements for licensure
- Methods of testing to determine proficiency
- Procedure for licensing nurses with out-of-state license
- Penalties for practicing without a license

ning to assert their legal rights as plaintiff in employment claim cases (Pohlman, 1987). Employment conditions in which nurses are likely to perceive a wrong and file suit to obtain a right are employer's breach of employment contract; termination of an employee for union-organizing efforts; discrimination in employment on the basis of sex, age, race, religion, or national origin; failure to pay men and women equally for similar work; failure to provide safe working conditions; failure to compensate employees for work-related illness and injury; sexual harassment of employees; and violating employees' rights to privacy.

Civil rights

The nurse manager is expected to abide by federal and state laws that protect employees' civil rights. Title VII of the Civil Rights Act of 1964 and the Equal Employment Opportunity Act (EEOA) of 1972 forbid discrimination in employment practices (hiring, firing, training, promotion, and awarding of benefits) on the basis of race, religion, sex, or national origin (Lehmann, 1981). The Rehabilitation Act of 1973 requires that handicapped individuals be afforded equal opportunity in job assignment and promotion (Tammelleo, 1988b).

Protection of employees' civil rights includes avoidance of wrongful discharge. Formerly, "at will" employees—those lacking a formal employment contract—had no legal recourse if fired. In some states, modification of statutes has made it illegal to fire an employee without cause. Employees are protected from the tort of outrageous discharge, which is being falsely charged of wrongdoing and summarily fired. Employees are protected against being fired without cause if an implied employee contract is contained in an employee handbook or agency policy statement (Tammelleo 1987a). Employees are also protected against being fired for expressing their civil rights, such as filing a workmen's compensation claim or engaging in union organizing activities (Rutkowski and Rutkowski, 1986, Tammelleo, 1985). To avoid

wrongful discharge of an employee, a nurse manager must supervise subordinates closely enough to be familiar with all aspects of the worker's performance, must institute progressive discipline for performance inadequacy, and must provide supportive counseling for any employee who is discharged for cause.

An exception to these prohibitions is permitted when religion, sex, or national origin is a bona fide occupational qualification that is necessary for proper agency operation, as when a Spanish-speaking nurse is needed to triage Hispanic patients in an emergency room (Cazalas, 1978). The Age Discrimination in Employment Act of 1967 protects employment rights of persons 40 to 65 years of age, stating that qualified applicants in the protected group cannot be denied employment solely on the basis of age (Stanton, 1976).

Occupational Safety and Health Act

The Occupational Safety and Health Act (OSHA) of 1970 was enacted to ensure safe and healthful working conditions for working men and women (Public Law 91-596, 1970). Among other provisions, the law requires isolation and placarding of patients with serious infectious diseases; placarding of areas that can emit ionizing radiation; proper grounding of electrical equipment; controlling atmospheric concentration of alcohol, formalin, and ether vapor; and protective storage of flammable and combustible liquids (Althaus, 1975).

Responsibility for Appointing and Assigning Personnel

Each manager is expected to be aware of legal restrictions affecting personnel appointment and assignment. A manager who departs from agency hiring policies can be held negligent if she or he appoints an employee without appropriate screening and that employee later injures a patient (Regan, 1977b). The vice-president of nursing and nurse administrators have responsibility for staffing and supervising nursing units to ensure safe, effective patient care. Therefore,

a nurse administrator has authority to temporarily reassign a nursing employee from one unit to another to compensate for emergency staff shortages. In shifting an employee to compensate for personnel shortage, a manager must take into consideration the nurse's capability to discharge duties of the temporary position. In floating nurses to an intensive care unit to compensate for understaffing, the manager should reassign only those nurses whose education and experience have prepared them to perform all of the nursing functions common to an intensive care unit (Creighton, 1986). Each nurse has a legal responsibility to make full disclosure of her or his background knowledge and skills and to notify the nurse manager when given an assignment for which she or he is not qualified. The manager is obliged either to relieve a nurse of too-difficult assignment or provide needed coaching for the job (Tammelleo, 1992). The manager is also obliged to adjust the amount and type of supervision to fit an employee's level of maturity and experience. Less experienced and less skilled employees need more professional support and advice from the manager (Cournoyer, 1989).

Responsibility for Quality Control

A health agency administrator and nurse managers at all hierarchical levels have a legal obligation to ensure nursing care quality. Therefore, during labor contract negotiations with unions representing health workers, a health agency's bargaining representatives must not accept contract language that shifts responsibility for staffing functions from nurse administrators to union representatives.

A nurse manager's legal responsibility for quality control of nursing service imposes a duty to observe, report, and correct the incompetence of any patient care provider. Case law indicates that the head nurse (patient care manager, unit nursing coordinator) is generally responsible for quality of patient care given by all personnel on the nursing unit, whether or not these individuals have direct reporting responsibility to the

head nurse (Regan, 1975c). Thus, the head nurse must evaluate the quality of care rendered by student nurses, clinical instructors, private duty nurses, respiratory therapists, physiotherapists, laboratory technicians, and medical students. When any of these persons render dangerous or inadequate care, the head nurse is responsible for reporting care failures and omissions to the responsible individual, and removing the offender from the unit (Regan, 1976e).

Nurse administrators have a legal duty to check the identification and credentials of a registry or special-duty nurse before allowing the nurse to care for a patient in the agency or unit. The vice-president of nursing of the contracting hospital is responsible for checking (or directing others to check) licensure and practice qualification of "outsider nurses" even when the registry claims to have screened each nurse prior to employment.

The nurse manager of each unit has a legal obligation to notify the vice-president of nursing and the agency's chief administrator when understaffing endangers patient welfare (Regan, 1976b).

A nurse manager has a duty to protect patients from injury by caregivers whose judgment and technical skill are diminished by drugs and alcohol. From ten to twenty percent of health care professionals are impaired by drug and alcohol abuse, and sixty-seven percent of disciplinary cases handled by state boards of nursing are drug related (Creighton, 1988). Courts hold employers accountable for torts committed by their employees while substance impaired (Henry and Parrish, 1988). Because impairment is sometimes difficult to prove by subjective observations and the consequences of patient injury by impaired caregivers are so serious, some health agencies have adopted drug and alcohol testing as a means to identify impaired workers and remove them from the clinical setting.

Usually drug testing is done under four circumstances: (1) before employment as part of application and selection procedures; (2) when there is reasonable suspicion of drug or alcohol

use by an employee; (3) as part of a routine physical examination of an employee; and (4) on a random basis. From a legal standpoint, preemployment screening offers least risk, because the person being tested has not yet been hired and thus is not vested with full employment rights.

Drug testing of current employees is more risky. Some court decisions indicate there must be reasonable suspicion of substance abuse to implement drug testing. When this principle is applied, random drug testing would be seen as unreasonable and constituting possible invasion of privacy. The Fourth Amendment to the U.S. Constitution prohibits unreasonable search and seizure. Some courts interpret the Fourth Amendment to prohibit a governing body from taking blood and urine specimens for drug screening.

So far, courts have shown a tendency to balance the employee's right to privacy against the government's concern about effects of substance abuse in the workplace (Tammelleo, 1991b). In different jurisdictions, courts have upheld policies for drug testing of employees in such "critical" positions as customs agent, bus driver, jockey, and prison guard (Henry and Parrish, 1988). Laws governing substance abuse vary from state to state. Some states define alcoholism and addiction as handicaps; others require an employer to provide alcoholic employees with a rehabilitation program. Despite confusion about interpretation of federal and state laws, a health care manager who perceives evidence of an employee's substance abuse has a duty to remove the employee from situations where she or he could injure patients or other employees and faces the risk of liability for discriminatory employment practices, invasion of privacy, or wrongful discharge.

Sexual Harassment

Sexual harassment is unwelcome sexual advance, request for sexual favors, or other verbal or physical conduct of a sexual nature that causes economic detriment to an employee or

creates offensive working conditions (Fiesta, 1988; Pohlman, 1987). The EEOC guidelines describe three types of sexual harassment: (1) Submission to sexual advances as an explicit or implicit condition of employment; (2) submission or rejection of sexual advances used as a basis for employment conditions; (3) sexual advances interfering with employee's work environment and job performance (EEOC, 1980). Most victims of sexual harassment are women, but both source and recipient of harassment may be of either gender.

Under the doctrine of "respondeat superior" courts hold an employer liable for the sexually harassing behavior of employees, whether or not the employer had knowledge of the harassment. Creighton (1987b) recommends that health agency administrators establish a formal policy for prompt, fair, and confidential handling of employee complaints of sexual harassment. Creighton also recommends that administrators consult psychologists and in-service teachers for help in designing orientation and counseling programs to prevent managers from harassing subordinates and help harassment victims cope with the psychological effects of sexual mistreatment.

Workmen's Compensation Laws

State legislatures enacted Workmen's Compensation laws to provide employees with legal means for obtaining compensation for illness or injuries suffered during employment. Under Workmen's Compensation laws, an employee need not prove the employer negligent nor prove herself or himself free of negligence to qualify for compensation (Cazalas, 1978). If it is demonstrated that the employee's injury or illness arose out of employment and was incurred within the scope of employment, the employee will be eligible for benefits (Creighton, 1977b). Under Workmen's Compensation laws, nurses have been compensated for disabilities resulting from falls, assaults, pranks, heavy lifting, and infections contracted from patients (Creighton, 1977c).

THE NURSE'S RESPONSIBILITY TO PATIENTS

Negligence

Negligence is the failure of an individual to do something that a reasonable person would do or the commission of an act that a reasonably prudent person would *not* do under similar circumstances (Creighton, 1978b; Tammelleo, 1989b). Negligence can also be defined as exposure of another's person or property to unreasonable risk of injury. Malpractice is negligence or carelessness by a professional person (Fiesta, 1983). A definition of what a "reasonably prudent" person would do in a particular circumstance is the standard of care to which a nurse is legally bound. Case law reveals that problems for which nurses are often found negligent include leaving a foreign object in a patient's body during surgery; failing to respond promptly to patient symptoms of impending disaster; failing to protect an infirm patient from falling; giving the wrong medicine to a patient; administering a medication inappropriately; and administering care in such manner that a patient suffers injury.

To establish negligence by a nurse, the plaintiff must provide evidence that the nurse owed a duty to the patient; that failure in that duty was likely to cause the patient harm; that the nurse did not meet the prevailing standard of care; and that the nurse's lapse of duty was the direct cause for the patient's injury (Cazalas,

1978; Northrop and Kelly, 1987; Schanz, 1987).

A clinical nurse specialist with acknowledged expertise in a clinical specialty is held to a higher standard of care than less educated nurses (Tammelleo, 1989f). Because operating room nurses, recovery room nurses, intensive care nurses, coronary care nurses, and nurse practitioners are highly visible to the public, these specialists are frequently named as malpractice defendants (Creighton, 1986). A licensed expert nurse is considered to be a professional specialist off-duty as well as on-duty. Therefore, a clinical nurse specialist can be found liable for negligence as a result of health information that she or he casually transmitted to another guest during a social event (Regan, 1976a).

A nurse may be guilty of negligence (failing to perform in accord with existing care standards) by ignoring official policies and procedures of the agency in which she or he is employed (Hogue, 1985; Tammelleo, 1993). If a hospital has a policy that two nurses must accompany an unconscious patient during transfer from one unit to another but a nurse manager directs one nurse to transfer a patient without assistance, and the patient is injured during transit, the manager can be held liable for professional carelessness.

In 1989 nurses represented 4 percent of defendants in 1,016 malpractice suits filed in a midwestern metropolitan area. Of malpractice claims against nurses, 50 percent were charges of failure to monitor, diagnose, and treat, and 22 percent were charges of negligent administration of medicines. The remaining 28 percent of claims against nurses included charges of improper insertion or removal of tubes; false imprisonment; strip-searching of a psychiatric patient; negligent postoperative care; failure to raise bed siderails; failure to protect a patient from burns by a heat lamp; and improper positioning during surgery (Levin et al., 1990).

MEMO CAPSULE

Basis for Negligence Claim

- Evidence that the nurse owed a duty to the client
- Failure to meet that duty likely to cause client injury
- Evidence that nurse failed to meet the prevailing standard of care
- Client suffered injury
- Evidence that nurse's failure was direct cause of client's injury

False imprisonment

Occasionally, nurses must temporarily employ physical restraint to protect infirm and disoriented patients from injurious falls. False imprisonment is unlawful restraint of an individual's personal liberty. Restraining a patient unnecessarily constitutes false imprisonment. Use of excessive or unnecessary force in restraining a patient may produce liability for battery (Cazalas, 1978). When restraining a disturbed patient, a nurse may apply as much restraint as needed to protect the patient from injuring himself or others, even without a medical order, if need for restraint develops unexpectedly (Regan, 1982). In an emergency, if the patient's physician cannot be reached, a nurse may employ temporary physical restraint until a physician can be summoned to examine the patient and order specific treatment (Regan, 1974b). When physically restraining a patient's movement, the nurse is expected to select an appropriate restraining device and apply it safely, so as to protect the patient from additional health hazard (Cushing, 1988). A reasonable precautionary measure is the application of full-length side rails on both sides of the bed for elderly, debilitated, confused, extremely obese, or heavily sedated patients (Creighton, 1982). To protect aged, infirm, confused patients from falls, the nurse should keep siderails elevated and check the rails frequently to ensure they are securely fastened and that the release mechanism cannot be accidentally tripped by the patient's body pressure. The nurse should record the position of the bed (up or down) and the position of siderails after completing each care procedure.

During a patient's stay in a health care agency, personnel are expected to protect him or her from injury by other patients and by staff members. Consequently, nurses have a duty to report a patient's or an employee's openly hostile behavior as indicating that the individual might assault patients or caregivers.

To protect the agency and employees against liability for failing to provide reasonable care

to a severely depressed patient, the vice-president of nursing and nurse administrators should implement a suicide-prevention policy to guide nursing practice. To prevent a charge of false imprisonment, the policy should state that suicide precautions will be instituted when staff are confronted with presumptive evidence that the patient is at risk of self-injury, such as diagnosis of psychiatric illness, history of previous self-injury, or admission of suicidal ideation (Hogarty and Rodatus, 1987).

Good Samaritan Laws

In response to health workers' fears of malpractice claims, most states enacted Good Samaritan laws that exempt doctors and nurses from liability when they render first aid during an emergency. Although anyone may render first aid and emergency care, no one is compelled to do so. A nurse who renders assistance at an accident scene is held to the same standards of skill, competence, and judgment that would be applied to a reasonably prudent person with the same preparation (Cazalas, 1978). Good Samaritan laws provide immunity from liability only under emergency conditions, that is, under unforeseen circumstances that require immediate action to prevent serious danger. Most states exclude situations occurring in a health agency from coverage by the Good Samaritan law (Regan, 1977a).

Responsibility for Equipment

To protect patients and employees from injury, a manager must ensure that all patient care equipment is fully functional and that defective equipment is promptly repaired or replaced. A manager must ensure that nursing personnel know how to operate sophisticated equipment, so that the manager is expected to provide instruction in proper care and storage of patient care equipment, as necessary. One court decision indicated that nurses have responsibility for continuing vigilance of care equipment, even when there is a service contract providing for technical

maintenance by an outside contractor (Regan, 1976c). Court decisions indicate that nurses have a duty to refuse to use equipment known to be faulty (Hogue, 1985) or that was not designed for use in the situation where it was ordered (Cushing, 1986).

Right to Privacy

The nurse has a legal obligation to protect a patient's right to privacy; to ensure that the patient has given informed consent for medical and surgical treatment; to keep confidential any personal information about a patient obtained during care; to record observations of the patient's condition and response to treatment on appropriate documents; to report significant changes in the patient's condition to his or her personal physician; to protect the patient from injury by negligent caregivers; and to record information about the patient's medical history and present condition for use by appropriate caregivers.

The right of privacy, which is guaranteed by the U.S. Constitution, is the right to be left alone, undisturbed, and free of unwanted publicity (Creighton, 1977a). Invasion of a person's privacy is a trespass on that person's body or personality. Patients' rights to privacy are infringed on when private information about their person, affairs, or circumstances is distributed to others without the patients' authorization (Tammelleo, 1988c). The unit manager must ensure that patients are not identified by name in case studies or reports used for teaching purposes, because these materials are often distributed to personnel other than those directly responsible for the patient's care. A patient's consent must be obtained before he or she can be photographed. The patient's permission must be obtained again before his or her photograph can be published. A patient's body and personal affairs may have to be exposed to some degree during care, but all caregivers are expected to treat the patient with respect, consideration, and as much privacy as possible. Failure to protect an immobilized, debilitated, or unconscious pa-

tient from unnecessary physical exposure is a form of negligence (Creighton, 1977a).

Informed Consent

A patient's consent must be obtained before any medical, surgical, or nursing treatment is administered. A patient's consent is his or her authorization for another to touch him or her for the purpose of care or treatment. Deliberate touching of another without authorization constitutes a tort called battery. Knowingly threatening another with likelihood of immediate harmful or offensive body contact is a tort called assault. Assault and battery, which usually occur in conjunction, may be charged against a caregiver who uses undue force to restrain an unruly patient or assists with a diagnostic or treatment procedure for which the patient has not given informed consent (Regan, 1976f). To be legally binding, a patient's consent must be based on full understanding of the proposed treatment (Hogue, 1985). To have full understanding of a recommended treatment, the patient should be told his or her diagnosis, the general nature of the proposed procedure, the risks associated with the procedure, the prospect of treatment success, the prognosis if the treatment is not given, and the available alternative courses of treatment (Creighton, 1978c). A patient who is heavily medicated cannot attend carefully to a physician's explanation of treatment. Therefore, a patient must not be asked to sign an operative consent form after receiving a preanesthetic medication. The physician bears primary responsibility for obtaining a patient's informed consent to treatment. The nurse is responsible for determining that informed consent has been obtained before assisting the physician with treatment. The nurse should report to the nurse manager or administrator when patient consent has not been obtained or if the patient lacks knowledge of the treatment consented to.

Consent to treatment may be oral or written. However, it is difficult to prove oral consent, so a patient's consent to treatment should be

written on an official form, or the discussion between physician and patient that results in the patient's consent should be tape recorded (Hogue, 1985).

In some states the informed consent law grants a physician the privilege of "therapeutic nondisclosure" if the physician believes the patient would be harmed by complete information about diagnosis and treatment (Fiesta, 1988). In this situation the patient might question his primary nurse concerning diagnostic test results, disease prognosis, and treatment outcomes. To resolve the legal and ethical dilemma posed by the patients' incompatible legal and medical requirements, the primary nurse should seek counsel from the head nurse, who may decide to consult the vice-president of nursing, hospital lawyer, or hospital ethics committee.

Confidential Communications

In a relationship based on trust and confidence, one party (the client) may give information to the other under the condition that the information not be disclosed to others. In American society the relationship between physician and patient, like that between lawyer and client, enjoys the protection of confidential or "privileged" communication. In a few states, statutes extend the privilege of confidential communication to the nurse, forbidding her or him to disclose personal information about a patient that was obtained during care, unless the information relates to the commission of a crime (Streiff, 1975). Nurses and other health workers may use information from a patient's medical record to administer care or for educational or research purposes. However, if patient information is circulated to unauthorized persons, that is, communicated without a court order or without patient consent, the nurse may be liable for damages on grounds of defamation or invasion of privacy (Cazalas, 1978).

Responsibility for Observation and Reporting

Nursing personnel have more frequent and prolonged patient contact than other caregivers.

Nurses are trained to detect significant symptoms and reactions. Consequently, nurses have a legal duty to observe patients frequently and report findings that have diagnostic or treatment value to the patient's physician and other members of the patient's treatment team (Tammelleo, 1987b). The nurse is expected to observe a patient more closely when his or her condition implies increased health risk (Tammelleo, September, 1986a; Tammelleo, 1991a). Infants, children, aged, disoriented, psychiatric, and critically ill patients require more frequent observation and evaluation than young adults, middle-aged adults, convalescent, or chronically ill patients with no evidence of impending respiratory or cardiac emergency.

The nurse has a duty to record and report observations of a patient's condition promptly, so that the physician can base treatment decisions on up-to-date information about the patient's health needs (Creighton, 1987c). When the patient's condition deteriorates to the point that immediate action is needed to save life or limb, the nurse must report observations of the patient's worsening condition to the physician in person or by telephone and notify nursing, medical, and hospital administration if the physician does not immediately respond to summons (Cournoyer, 1989). The nurse has a duty to report improper medical care through appropriate channels in order to protect patients from physician negligence (Sheffield, 1978).

Advance Care Directives

The 1991 Patient Self Determination Act requires health care providers who receive Medicare and Medicaid funding to inform patients about their legal options in refusing or accepting treatment if they become incapacitated (Cate and Gill, 1991). The Patient Self Determination Act defines an "advance directive" as a written instruction, such as a living will or durable power of attorney for health care, which is recognized under state law and relates to the provision of health care when the individual is incapacitated. The act decrees that written infor-

mation about the right to make decisions about medical care be given to a patient at the time of admission to a health facility. Because it is customary for a nurse to process patients for admission to hospitals and nursing homes, nurses must be able to interpret the agency's policies about advance care directives.

MEMO CAPSULE

Patient's Rights

- Right to privacy
- Right of informed consent to treatment and research participation
- Right to have personal information protected from unauthorized use
- Right to record advance directives for care and treatment measures

Most states have statutory provision for a living will, which is a document in which a competent adult provides instruction for his or her medical care in the event of later incapacity. Most states also have laws that provide for a durable power of attorney for health affairs. Under such law the state authorizes the appointment of an individual to make personal health care decisions for another person who is incapacitated. The advance care medical directive is a third legal instrument by which an individual can participate in medical decision making for later care. The advance care medical directive is a combination of living will and durable power of attorney for health care, in which the individual consults with his or her personal physician and family members to provide precise instructions for the type of care that she or he wishes to receive under several sets of circumstances. The individual may appoint a proxy decision maker to help to interpret the specific directions after passage of time has altered medical practice patterns or the patient's life circumstances.

The values history is a document containing

information about an individual's personal values, beliefs, and preferences that should be considered by relatives and professionals who make decisions about his or her health care. In the typical values history an individual indicates how important physical mobility, physical comfort, independent living, human companionship, and cognitive clarity are to his or her perceived quality of life. Such information can assist professional and family caregivers to interpret the individual's advance care directions following major changes in personal and family circumstances.

When caring for a patient during admission to a health facility, the nurse should provide the patient with written instructions regarding rights to establish advance care directives; should answer any questions the patient may have about advance directives; should inquire whether the patient has previously documented advance care directives; and should obtain a copy of the document (living will, durable power of attorney for health care, or advance care medical directive) and attach it to the patient's medical record. Furthermore, the nurse should ensure that the advance care directive document is transferred with the patient if she or he is transferred to another health facility.

MEMO CAPSULE

Documents to Ensure Patient Autonomy

- Living will
- Durable power of attorney for health affairs
- Statement of life values
- Advance care medical directive

THE NURSE'S RELATIONSHIP TO THE PHYSICIAN

A considerable body of law applies to the nurse's relationship with the physician. "Respondeat superior," or "Let the master answer,"

is the principle that an employer is legally responsible for the wrongful acts of his or her employee while the employee acts within the scope of employment (Fiesta, 1983). An employee's behavior is considered to be within the scope of employment if it is a type of behavior she or he was employed to perform, occurs generally within job-authorized time and space, and is motivated by a purpose to serve the employer (Northrop and Kelly, 1987). Frequently, corporations that employ nurses are sued together with an individual nurse, because corporate bodies have more assets from which to compensate victims of negligence (Northrop, 1984). The doctrine of "borrowed servant" is a variation of "respondeat superior" that holds that a worker's regular employer is not liable for injurious acts of the worker while the worker is in special service to another (Cazalas, 1978).

In some situations, an operating room scrub nurse can be considered the borrowed servant of an operating surgeon, so that the surgeon, rather than the employing agency, is liable for patient injuries that result from the nurse's negligence (Regan, 1976g). In each situation, the decision whether a nurse is the borrowed servant of a physician depends on degree of the supervising physician's control over specific actions by the nurse (Regan, 1976d). In the past, courts were likely to find the operating room nurse a borrowed servant of the surgeon on the theory that the surgeon is "captain of the ship," who commands activity of all personnel in the operating room (Tammelleo, 1987c). In recent years, courts have decided that the nurse may be a borrowed servant of the physician when carrying out the physician's direct instructions, but is the hospital's agent when engaged in administrative, nonmedical procedures, such as counting sponges and instruments (Texas court, 1977). In some states, the captain-of-the-ship concept and borrowed-servant doctrine have fallen into disuse as courts recognize the professional responsibility of individual operating room and critical care nurses (Regan, 1978a). It is common for both surgeon and nurse to be

found liable for negligence when injury results from erroneous sponge and instrument counts (Regan, 1975a; Tammelleo, 1989c).

Increasing numbers of nurses are employed in independent settings, such as school health, industrial health, and home health nursing. When expected to care for a patient in an independent setting, the nurse should perform a complete patient assessment (health history and physical examination), use the assessment to develop a detailed, individualized care plan, and have the plan signed by the patient's physician before implementing care measures (Creighton, 1987a). When nursing practice in an independent setting depends on standing orders from a physician, the orders should be written, dated, and signed and should be updated on a regular basis (Creighton, 1985; Tammelleo, 1986b).

Sponge, instrument, and needle counts

Both the JCAHO and the Association of Operating Room Nurses advocate that sponge, instrument, and needle counts be performed for all surgical procedures (What is legal margin, 1977). Each nurse manager or administrator should establish policies and procedure for sponge, instrument, and needle counts in the nursing unit (even if minor diagnostic and treatment procedures involving instrumentation are performed in the setting). When an instrument or needle is accidentally left in a patient's body during surgery, the operating room nurse will probably be liable for any patient injury caused by the presence of the foreign body (Northrop, 1984; Tammelleo, 1989c).

Standing Orders

The definition of nursing included in the nurse practice act of many states carries the following qualifying statement: "The foregoing shall not be deemed to include acts of diagnosis or prescription of therapeutic or corrective measures." Although a nurse may not legally diagnose illness or prescribe treatment, she or he may, after assessing a patient's condition, apply "standing orders" or treatment guidelines that

have been established by the physician as appropriate for certain problems and conditions (Streiff, 1975). Each nurse manager is responsible for persuading the physician in charge of the unit to periodically review, sign, and date any standing orders that nurses are to implement in her or his absence (Creighton, 1985).

Clarification of Treatment and Discharge Orders

Nurses have been instructed in principles of physiology, pathology, and pharmacology. Consequently, a nurse is expected not to blindly follow a physician's medication orders but to check for symptoms of toxicity or incompatibility of ordered drugs. When a nurse has reason to question a medication order, she or he is expected to promptly notify the patient's physician of the perceived problem, so that the physician can clarify or modify the order (Hogue, 1985). When the nurse is unable to reach the patient's private physician, she or he may not delay order clarification but must contact a backup physician or notify the nurse manager to locate the patient's physician, to protect the patient from unnecessary suffering and injury.

When a nurse knows that executing a physician's drug order would be contrary to a manufacturer's recommendation or the agency's medical policy, the nurse should delay executing the order until she or he confers with the physician who wrote the order or a physician authorized to act for the primary physician. If a particular physician regularly violates manufacturers' recommendations when ordering drugs, the nurse should report the problem in writing through her manager to the appropriate medical administrator (Regan, 1975a).

When a nurse observes signs and symptoms that indicate that a patient has developed a complication that would make it dangerous for him or her to leave the health agency, the nurse has a duty to ignore a physician's order to discharge the patient to home or another health agency and to obtain needed medical care for the patient (Tammelleo, 1988a).

Oral Orders

To prevent communication errors, health agency policies usually require that physicians' orders be written, unless an emergency exists. When lack of time or contiguity make it necessary for a physician to transmit a treatment order orally, in person or by phone, agency policy may permit a nurse to respond to a verbal order. To reduce misunderstanding, agency policy should detail the conditions under which oral orders may be implemented, which categories of personnel may respond to an oral order, procedures for checking accuracy of an oral order, and the time allowed for securing the physician's countersignature for an order dictated by the physician and recorded by a nurse (Regan, 1975b). Nurses should not implement oral orders to halt life-support systems or refrain from cardiopulmonary resuscitation of terminally ill patients. Terminating cardiovascular and respiratory support carries risk of malpractice claims, so that some physicians are reluctant to write an order to terminate life-support measures. A nurse who carries out an oral "No Code" order could be found liable for withholding needed treatment from a critically ill patient (Sheffield, 1978).

Responsibility to Protect Patient from Harm

The nurse has a legal duty to protect patients from risk of harm by intoxicated or incompetent physicians. When a nurse observes a physician whose behavior seems negligent or malicious, the nurse should carefully examine all the facts of the case. If review of additional information substantiates the nurse's original appraisal, she or he should write a report of the incident that provoked concern and submit the report through the unit's nurse manager to the vice-president of nursing (Creighton, 1976b).

Slander, Libel, and Character Assassination

As malpractice litigation increases, some physicians seek to extricate themselves from liability by shifting responsibility for patient injury to nursing personnel. A nurse must be fa-

miliar with an individual's legal rights to protect herself or himself from false accusation and character assassination by unscrupulous physicians (Fiesta, 1986). Defamation is an oral or written communication to someone other than the person defamed of matters concerning a living individual that injure her or his reputation (Cazalas, 1978). Slander is oral defamation; libel is written defamation. Slander is less weighty than libel, so slander is not actionable unless the plaintiff proves actual damage. However, when slander consists of accusing a person of crime, accusing a person of having a loathsome disease, demeaning the person's professional ability, or imputing unchastity to a woman, no proof of injury is necessary for damages to be recovered (Streiff, 1975). A group of nurse aides successfully brought suit for slander against a physician who told others that the aides had murdered one of his patients in the course of restraining him for a medication injection (Regan, 1979b).

A nurse manager can reduce the probability of nurses' defamation by physicians and physicians' defamation by nurses by establishing an objective, confidential process for registering complaint about the quality of patient service rendered by another caregiver (Regan, 1978b). Each health agency has a policy and procedure for writing, distributing, and filing incident reports. The unit manager should instruct nursing personnel that the incident report should be a simple factual account of an unusual occurrence that portends actual or potential harm to a patient, visitor, or employee and should not be used to air personal complaints about professional colleagues.

THE NURSE'S RESPONSIBILITY TO PROTECT THE PUBLIC

The nurse has a legal duty to protect the public from injury by dangerous patients. Each nurse manager or administrator should ensure that the agency in which she or he is employed has a policy describing the procedure to be followed when a patient with violent tendencies

who threatens violence to others is discharged or escapes from the agency (Regan, 1978c). The manager must ensure that nursing personnel follow the procedure to alert community members to the presence of a potentially dangerous patient in their midst.

THE NURSE'S RESPONSIBILITY FOR RECORDKEEPING AND REPORTING Patient's Medical Record

Nurses have legal responsibility for accurately reporting and recording patients' conditions, treatments, and responses to care (Tammelleo, 1990). The medical record is a written or computerized account of a patient's illness and treatment that includes information submitted by all members of the patient's health care team. The medical record is an information source document that should be used to plan care, evaluate care, allocate costs, educate personnel, research care measures, and substantiate legal claims.

Court decisions have stated that the patient's medical record is essential to proper care, and the medical record is the property of the health agency. However, the patient has a property right to information contained in the report; the patient has a right to inspect and copy the record after being discharged (Creighton, 1976a). However, it is inadvisable to allow a patient to review his or her medical record without medical supervision and explanation, because a patient is likely to misunderstand certain record notations.

Failure to record significant patient information on the medical record makes a nurse guilty of negligence when the patient is injured because of a physician's ignorance of significant information about medical history, signs, and symptoms (Creighton, 1987c).

The medical record must be accurate to provide a sound basis for care planning. Therefore, errors in nurses' charting must be corrected promptly in a manner that leaves no doubt about the facts. Every health agency should have a policy and protocol that direct that an erro-

neous chart entry be crossed through, labeled as erroneous, signed by the employee who corrects the error, and retained in the patient's record. Correct information should then be documented to replace the erroneous data. Pages of the record that contain erroneous and corrected entries should never be destroyed (Creighton, 1987d). Nurses who conspire with physicians or others to falsify a patient's record for purposes of concealing a criminal violation (such as infraction of a medical or nurse practice act) may be found criminally liable (Creighton, 1978a).

Reporting Public Health Information

All states have health statutes that require that certain public health information be reported to specified government offices. Generally, the person who makes reports required by statute is immune from suit under the doctrine of the public's right to know.

In many states there are statutes that require health personnel to report instances of child abuse, ophthalmia neonatorum, infant phenylketonuria, communicable diseases, births out of wedlock, gunshot wounds, suicide, rape, and use of unprescribed narcotics. In reporting in-

RESEARCH BRIEF

Nurse Practice Act Violations

Purpose: Explore the relationships between socioeconomic variables and violations of state nurse practice act.

Sample: Records of 100 investigations of violations of Arizona State Nurse Practice Act, over a two-year period.

Method: Records of violations were selected from cases in which State Board investigation was concluded and case files closed. Descriptive data about age, gender, marital status, nursing education, area of clinical practice, employing agency, and violation were abstracted from each subject's violation file. Descriptive data for offenders were compared with data collected by the State Board of Nursing for all nurses licensed in the state.

Findings: Although socioeconomic data for offenders and nonoffenders were not always compiled in comparable categories, the following findings were reported. A higher percentage of violators than nonviolators were separated or divorced. The largest number of violators were ADN graduates; the largest number of the state's total RNs were diploma graduates. Sixty-two percent of offenders had graduated within the last 10 years, and 32 percent within the past

five years. Ten percent of offenders, but 5 percent of the state's total nurses, worked in nursing homes. Fifteen percent of offenders, but 1.6% of the state's total nurses, worked for a registry. Fifty-four percent of offenders, but 37 percent of the state's total nurses, worked in medical-surgical nursing.

Application: All violators had been charged with unprofessional conduct; some for incompetence, some for substance abuse. High rate of separation and divorce among violators suggests that marital and family stress may have contributed to substance abuse by some violators. Higher rate of violation among recent than former graduates may reflect growing social disorganization and decline of the work ethic. High percentage of offenders among registry nurses suggests that some substance abusers work through registries to avoid detection. Experts claim that many violations of the Nurse Practice Act are unreported. To ensure patient safety, managers are responsible for detecting and correcting nurses' incompetence and substance abuse. Correction may entail reeducation, re-motivation, referral (for treatment), and reporting violations to the State Board of Nursing.

Source: Morphy, J. "Correlates of the Nurse Practice Act: How High Is the Price of Nursing Management 18:9 44-48

formation about criminal acts obtained during patient care, the nurse must reveal such information only to the police, because it is considered a privileged communication (Streift, 1975).

SUMMARY

Several aspects of statutory, case, and administrative law control nursing practice and nursing management. The state's nurse licensure law, the Civil Rights Act of 1964, Age Discrimination in Employment Act of 1970, and Equal Employment Opportunity Act of 1972 protect workers against discrimination in hiring, promotion, and educational opportunities on the basis of sex, race, religion, age, or national origin. The Occupational Safety and Health Act of 1970 protects workers against unnecessary risks to health or life in the workplace. The state's Workmen's Compensation law provides a means for employees to obtain compensation for work-related illness and injury. A large body of case law protects patients against negligence, assault and battery, false imprisonment, invasion of privacy, and defamation of character by nursing caregivers. Court rulings have defined the nurse's role and responsibilities as an employee of a health agency and as "borrowed servant" of a physician. Court rulings have defined the responsibilities of nurses in general and nurse specialists in particular with reference to clarifying and recording physicians' orders, use of standing orders, observing and recording patients' conditions and responses to treatment, counting sponges and needles during surgical operations, reporting and refusing to use unsafe equipment, and reporting public health information to appropriate authorities (Creighton, 1978b; Creighton, 1985; Luckinbill-Brett and Stuhler-Schlag, 1987; Tammelleo, 1988a; Tammelleo, 1989a; Tammelleo, 1989c; Tammelleo, 1989d). The nurse manager is obligated to become sufficiently informed about nursing practice conditions in the agency or unit and about laws governing nursing and management to protect herself or himself, subordinates, and em-

ployer from personal, professional, and economic losses from malpractice.

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Labor-Management Relations

He that wrestles with us strengthens our nerves and sharpens our skills.

EDMUND BURKE

OBJECTIVES

After reading this chapter, you should be able to:

1. Describe two unfair labor practices by management (as defined by the National Labor Relations Act).
2. Describe two unfair labor practices by a union (as defined by the National Labor Relations Act).
3. Explain the requirements that must be met before the National Labor Relations Board will hold an election to determine a union's right to act as collective bargaining agent for nurses in a health agency
4. Recommend three actions to be taken by an agency's vice-president of nursing and nurse administrators when preparing to negotiate a contract with the union that represents agency nurses.
5. List three issues designated by the National Labor Relations Board as mandatory issues for collective bargaining between union and management.

Labor is the expenditure of physical or mental effort to make goods and services available. An industry's labor force is the aggregate of employees who produce that industry's output of goods and services. Managers are employees

who direct the work activities of the laborers who produce goods and services. A relationship develops between two individuals or groups when they are mutually engaged in an issue or complex of issues.

Work in the health industry is labor intensive. Recent social and technological changes in a climate of increasing financial pressure have produced misunderstanding and conflict between laborer-caregivers and their managers (Coulson, 1981). Since 1960, the relationship between management and labor in most health agencies has undergone major change because of the increasing unionization of health workers.

A union or labor organization is an organization in which employees participate for the purpose of negotiating with the employer about grievances, labor disagreements, wages, hours of work, and conditions of employment.

COLLECTIVE BARGAINING

The chief activities of a labor organization are collective bargaining and conflict resolution between workers and management. Collective bargaining is a rule-making process that is undertaken by representatives of labor and management in a given agency. Collective bargaining are the negotiations between an employer and an organization representing a bargaining unit of workers for purposes of creating or changing a contract that covers terms and conditions of employment. In 1980, 27 percent of hospitals had collective bargaining agreements (Rakich et al., 1985).

The labor agreement that results from collective bargaining is a code of procedures for the orderly resolution of questions or conflicts that are likely to arise between labor and management during daily operations. By specifying these procedures, a labor agreement clarifies the rights and obligations of labor and management with regard to issues of common interest and establishes a civilized forum for resolving differences (Sargis, 1985).

To understand the purpose and procedure for collective bargaining, a manager should be familiar with the Wagner Act and its subsequent revisions, which were designed to resolve conflict between employees and employers. In 1935 the Wagner Act, or National Labor Relations

Act, was passed as a means of remedying imbalances between labor and management with respect to collective bargaining. The act established workers' rights to join a labor organization and participate in collective bargaining with employers. It designated certain practices by employers as intruding on workers' rights to organize and bargain collectively and declared those employers' practices illegal. The act also created the National Labor Relations Board, a quasi-judicial body with power to administer the National Labor Relations Act and eliminate unfair labor practices (Emerson, 1980).

The National Labor Relations Act was so effective in controlling unfair labor practices that during the decade following passage, the balance of power shifted toward the side of labor, leaving management at a disadvantage in collective bargaining (Huston and Marquis, 1989). In 1947, the Taft-Hartley Act was passed to remedy this imbalance. The Taft-Hartley Act, or Labor-Management Relations Act, reaffirmed employees' rights to collective bargaining, prohibited unfair labor practices by employers, but also imposed limitations on collective bargaining activities by specifying certain rights for employers and requiring a cooling-off period for strikes (Schermerhorn, 1989). The Taft-Hartley Act stipulated that an employer need not bargain with a union containing supervisory personnel. A supervisor was defined as "any individual having authority in the interest of the employer to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline other employees or responsibly to direct them, or to adjust their grievance" (Rakich et al., 1985).

In 1946 the American Nurses Association's Economic Security Program was implemented to enable state nurses' associations to bargain collectively for their members (Lewis and Spicer, 1987; Luttman, 1982). From 1946 to 1968 the program grew slowly, because nurses were not aggressive in pushing for higher wages and decision making authority and employers

strongly resisted nurses' efforts to organize and bargain collectively. In 1968 the association canceled its "no-strike" pledge to enable member nurses to use work stoppage as a financial sanction to support contract demands (Schutt, 1968). In the 1970s, after the removal of the "no-strike" pledge, nurses organized in great numbers and bargained so successfully through their state nurses' associations that their salaries rose faster than those of other service workers.

In 1974 the National Labor Relations Act was amended to extend coverage of the act to employees of nonprofit hospitals (Luttman, 1982), thereby doubling the number of health workers eligible for collective bargaining. The 1974 amendments to the Taft-Hartley Act also specified that a union must give 10 days' notice before striking or picketing a health agency (to provide time to ensure continuity of patient care) and that union and employer must give 90 days' notice to the other before terminating or seeking to modify a collective bargaining agreement. Only 60 days' notice of contract termination are required in other industries. However, a 90-day notice was required for health agencies to protect patients from ill effects resulting from precipitous labor-management actions. Any dispute in a health care agency was to be automatically referred to the Federal Mediation and Conciliation Service for settlement (Rakich et al., 1985). Before the 1974 Taft-Hartley amendments, few organizations other than the ANA sought to represent nurses in collective bargaining. Since 1974, more than a score of national and international unions have tried to organize registered nurses, sometimes successfully. Among these unions are the Service Employees International Union, the National Union of Hospital and Health Care Employees (1199), and the Federation of Nurses and Allied Health Professionals (a branch of the American Federation of Teachers) (Numerof and Abrams, 1984).

Group action has produced substantial wage increases since the 1970s. However, some nurses resist collective bargaining, considering

it a mass tactic better suited to trade unions than to professional workers with strong service ideals. Such nurses protest that concern for financial reward is "unprofessional" and that strikes constitute heartless abandonment of helpless patients (Beletz, 1985). Some believe that nurses' reluctance to strike results from having been socialized to conceal hostility and to acquiesce to authority. Proponents of collective bargaining point out that strikes occur more often during workers' attempts to organize than after a contract has been signed. Once a contract has been negotiated, the existence of a formal grievance procedure and the availability of rights arbitration tend to limit strikes by agency employees. As nurses continue to unionize, strikes against health agencies are expected to decrease in frequency.

HISTORY OF LABOR ORGANIZATION

To direct unionized personnel effectively, a nurse manager should understand the history and purpose of labor organization. For more than a century, manual laborers have organized to secure improved salaries and working conditions. At different times in the past, both management (owners) and unions have been guilty of errors and excesses, so that the history of labor-management relations has been characterized by violence. Since World War II, increasing automation has reduced the number of blue-collar workers and increased the number of white-collar workers in the automotive, mining, steel, and other heavy industries. To compensate for dwindling membership, several unions organized workers in the rapidly growing health industry (Eldridge and Levi, 1982; Gullett and Kroll, 1990; Scott and Simpson, 1989).

Following World War II, large numbers of salaried professionals moved into health care bureaucracies (physicians, nutritionists, social workers, psychologists, accountants, etc.). These professionals, feeling stifled by bureaucratic red tape, demanded a voice in management decision making in health agencies. Some labor organizations that were successful in re-

cruting ancillary and clerical personnel in the health field now court disgruntled health professionals (Flarey et al., 1992). It is predicted that 50 percent of all health care organizations and employees will be engaged in collective bargaining by 1995 (Fottler, 1987).

REASONS FOR UNIONIZATION BY NURSES

Nursing personnel join labor organizations to negotiate for improved salaries and working conditions, protection against arbitrary discharge, and control of practice issues (Numerof and Adams, 1984). When employees are not organized, management is free to establish employment terms and conditions with each employee separately, and serious inequities between workers are possible (Smith, 1981). When a collective bargaining agreement exists, limits are placed on management's ability to appoint, assign, reward, and discipline employees, so that there is less opportunity for favoritism.

When employees are not represented by a labor organization, an employee who disagrees with a management policy or decision may be subject to immediate discharge. When a collective bargaining agreement exists, an employee who disagrees with a management decision can appeal that decision through the grievance procedure, thereby ensuring review of the decision by administrators at successive levels of organizational hierarchy.

When nurses are unorganized, their involvement in agency planning and decision making tends to be minimal (McClelland, 1983; Throckmorton and Kerfoot, 1989). When a collective bargaining agreement establishes a nursing practice committee, staff nurses have the opportunity to confer with nurse administrators about methods of improving care delivery.

Usually, dissatisfaction with salary, workload, administrative support, and advancement opportunities cause nurses to join a labor organization. A 1977 survey of nurses employed by the New York Health and Hospitals Corporation (Sargis, 1985) revealed that the surveyed nurses felt unable to carry out profes-

sional aspects of nursing care because of inadequate staffing, improper equipment, and responsibility for many nonnursing functions. A survey of unionized public health nurses in California (Bloom et al., 1979) revealed that nurses' dissatisfaction about lack of communication with management and exclusion from organizational decision making predicted their later strike behavior. During hospital closings and nursing staff cutbacks in the mid-1980s, some nurses joined unions in an effort to obtain increased job security (Smith, 1985).

MEMO CAPSULE

Reasons for Unionization by Nurses

- Obtain greater financial reward: Higher salaries, increased benefits.
- Improve working conditions: Better hours, more comfortable work setting.
- Control practice conditions: Self-scheduling, determine method of care delivery.

A strike is a collective action by a group of employees who refuse to perform the assigned work. Strikes are most apt to occur when no labor contract exists, when the original contract has expired, or when labor and management cannot agree (Cardin and Ward, 1989). The average length of a hospital strike is 18 days, which is less than in other industries (Lewis and Spicer, 1987).

Experts predict that in the future, nurses' primary reason for joining a labor organization will be to negotiate professional issues rather than to improve salary and working conditions (Wilson et al., 1990). Nurses' changing self-perceptions have caused dissatisfaction with restricted role definitions, dependency in the power hierarchy, and limited opportunities for advancement. Numerof and Abrams (1984) attribute these "professional" dissatisfactions to the fact that baccalaureate nurses are recruited

from higher socioeconomic strata than their diploma school predecessors, current graduates are more highly skilled and desire greater responsibility for clinical decision making than their predecessors, and increasing nursing specialization has widened the communication gap between nurse administrators and clinical nurses.

Of all health workers, nurses are the most geographically mobile. As collective bargaining by health workers increases, each newly hired nurse will be more likely to have been educated or employed in an agency where nurses were unionized. If the nurse perceives that collective bargaining secured improved salaries and working conditions in a previous clinical setting, she or he will probably support union organizing attempts at a subsequent place of employment.

CHARACTERISTICS OF LABOR UNIONS

A manager may have to deal with more than one union if the agency has several categories of unionized personnel. Although details of the several labor contracts will vary, the general principles of labor-management relations will apply to the manager's interaction with members of all unions. A union uses the technique of negotiation and operates like a political institution. Union officials are elected to office and must retain constituents' support to remain in power. The political character of a labor organization makes it possible for the organization to file a grievance or request arbitration over a patently trivial matter. A union can prove its ability and willingness to support the objectives and interests of diverse members by vigorously defending even a questionable claim by a single member. A manager will find it easier to deal objectively with union representatives during contract negotiations and grievance arbitration if she or he sees the union as a political body with a platform to be publicized, a campaign to be waged, constituents to be satisfied, and power to be advertised through a confrontational stance.

A union, like other political organizations,

has survival needs. Any attempt by a nurse manager or health agency administrator to undermine union activities will be viewed as a threat by union officers and members, who are likely to retaliate in some fashion. Disgruntled workers often retaliate by decreasing productivity, so that innocent patients may suffer during union-management conflict.

Union Certification

Before a union can bargain for a group of health workers, the union must be recognized as the certified, exclusive bargaining agent for that group. If a union or a state nurses' association wishes to become certified as exclusive bargaining agent for nurses in a health agency, union representatives will ask agency nurses to sign cards authorizing the organization to represent them in collective bargaining. When the union can demonstrate that it is supported by 30 percent of nurses in the agency, it will petition the National Labor Relations Board to hold an election to determine representation rights. If a majority of nurses *who vote in the election* indicate they want the organization to represent them, that organization will be certified as exclusive collective bargaining agency for the nurses (Schermerhorn, 1989).

Defining Membership of the Bargaining Unit

In the process of certifying a union as official bargaining agent, both union and employer attempt to specify which worker classifications are eligible for membership in the bargaining unit (Emerson, 1980; Gullett and Kroll, 1990). In general, the union will attempt to increase the number of positions included in the bargaining unit, because increasing the size of the unit will increase its power for collective bargaining. The employer will seek to minimize the number of positions included in the bargaining unit to ensure that a strike by members of the bargaining unit cannot halt agency operations.

Determining which positions are eligible for inclusion in a given bargaining unit is a decisive factor in that unit's bargaining success. Con-

sequently, there is often disagreement as to which nursing positions carry supervisory responsibility. Supervisors are excluded from coverage by the Taft-Hartley Act, which defines a supervisor as an "individual having authority in the interest of the employer to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline other employees" (Rakich et al., 1985). Health agency administrators insist that every nurse above staff nurse level is a supervisor, because she or he directs the activities of subsidiary workers. However, the ANA differentiates between that aspect of a professional nurse's authority that is based on knowledge and skill and that aspect of authority that derives from an administrative position. The ANA is willing to accept that the vice-president of nursing and a few nurse administrators and managers be considered supervisors and be excluded from the bargaining unit but claims that head nurses and many so-called nurse supervisors fulfill an advisory rather than a supervisory role and should be eligible for bargaining unit membership.

Because the ANA qualifies as a labor organization under the National Labor Relations Act (Creighton, 1976), many health agency administrators demand that administrative nurses drop membership in that professional organization. According to Creighton, a health agency's policies may prevent the nurse executive or administrator from membership in the ANA, although it is not unlawful for a nurse executive to belong to a labor organization.

MANAGEMENT AND UNIONIZATION

Most health agency administrators oppose unionization of health workers, because they believe that the influence of a labor organization interferes with worker-manager communications and that contract specifications reduce employee flexibility. At the same time, some agency administrators see the union as a possible ally in controlling the behavior of troublesome employees. One administrator advised a nursing supervisor to use the union steward as a "con-

sultant" by sounding him or her out about the probable reactions of union members to specific management plans and proposals (Sain, 1984).

Some vice-presidents of nursing oppose the unionization of nurses, because they see an organized work force as threatening the nurse executive's precarious organizational power base. On the other hand, others welcome collective bargaining by nurses as a means of improving nurses' salaries and working conditions, enabling the agency to attract and hold well-qualified staff members. Porter-O'Grady (1992) claims that management and unions must learn to cooperate more effectively in order to implement the self-directed work teams and participative management that are needed to improve health care quality and to reduce costs. However, most nurse executives do not believe that management should bargain with unions about nurse staffing patterns, because staffing is seen as a management right that should not be negotiated.

Health agency administrators and nurse executives who uphold the rights of employees to organize must be careful not to infract labor laws by *cooperating* with an employees' union. Any effort to dominate or control a labor union through financial or nonfinancial means is considered an unfair labor practice (Rakich et al., 1985). Therefore, administrators should not promote membership in the ANA or other labor organizations, nor should they provide rooms in the agency for meetings of the bargaining unit or allow employees to use paid time for training in collective bargaining techniques.

When nurses in a health agency organize to bargain as a group, the vice-president of nursing may feel guilty, embarrassed, rejected, and threatened by their actions, believing that more efficient management would have increased nurses' job satisfaction and eliminated their need to organize. Often, the agency administrator blames the vice-president of nursing for labor-organizing activities by nursing employees. However, nurses organize as much to increase salaries as to control practice issues, and the

vice president of nursing's recommendation is only one of several factors that determine nurses' salaries.

Managerial Rights

In any health agency, the vice-president of nursing is ultimately responsible for the quality of nursing care. Because the agency's nurse executive must delegate quality-control responsibilities to nurses who are members of the bargaining unit, she or he must retain the authority to hire, assign, direct, and discipline personnel (Cela, 1989). The nurse executive should bargain carefully with the nurses' union, to ensure that the resulting labor contract enables agency nurse administrators and managers to direct the work force to achieve agency goals and mission.

PREPARATION FOR COLLECTIVE BARGAINING

The vice-president of nursing's preparations for collective bargaining should begin months before the contract talks. She or he should establish and maintain a pleasant relationship with union representatives by treating them courteously in social situations, contract negotiations, and grievance hearings (Savage and Blair, 1989). The vice-president of nursing should obtain information from other nurse executives about union activities in neighboring health agencies and should review labor contracts negotiated in other agencies whenever possible to determine what types of demands were made by various worker categories. The nurse executive should keep an ongoing record of the agency's employee grievances and analyze these before negotiations begin, because the subject of recurring grievances is apt to appear as a union proposal during subsequent contract negotiations.

In order to evaluate the union's wage requests, the vice-president of nursing and director of personnel should research the wage-salary structures of other health agencies in the community and compare these against the agency's current wage-benefit package.

The vice-president of nursing should read the

National Labor Relations Act and its several emendations to identify the limitations imposed on management and labor with regard to collective bargaining. The following limitations should be carefully observed:

A. Prohibited management actions

1. Discharging or discriminating against an employee because she or he tried to organize a union or voted for a union
2. Dominating or interfering with the formation or administration of a union or contributing financial or other support to a labor organization
3. Refusing to bargain collectively with a union that has been chosen by a majority of the employees
4. Granting employees wage increases or special concessions in an effort to discourage employees from joining a labor organization
5. Preventing employee union representatives from soliciting employee membership during nonworking hours (Huston and Marquis, 1989; Shephard and Doudera, 1981).

B. Prohibited union actions

1. Refusing to bargain in good faith with the employer regarding requests of union members
2. Failure to notify the employer 90 days before the expiration of an existing con-

MEMO CAPSULE

Unfair Management Practices

- Discipline employees for union activities.
- Interfere with formation of employee union.
- Contribute financial support to employee union.
- Provide incentives to discourage employees from joining a union
- Prevent employee union member from recruiting during nonworking hours.

tract of the union's desire to terminate the agreement or to negotiate a modification

3. Failure to give the employer 10 days' notice before striking or picketing a health agency
4. Recruiting members during work time.

MEMO CAPSULE

Unfair Labor Practices

- Refuse to bargain in good faith with employer's representative.
- Fail to give employer adequate notice of desire to terminate contract
- Fail to give employer adequate notice of intention to strike or picket the agency.
- Engage in union recruiting activities in patient care areas and during work time.

Generally, outsiders (health agency nonemployees) may not solicit employees for union membership anywhere on health agency property. Employees are not allowed to solicit other employees for union membership during working time or in patient care areas. If the health agency allows nonemployee groups to post materials on agency bulletin boards, the organization may be required to allow a union to post materials on agency bulletin boards, as well (Lahberty and Christopher, 1986).

The vice-president of nursing should analyze the National Labor Relations Board's certification order to determine which agency jobs or positions may be legally represented by the union in question. Then the nurse executive should determine the number of personnel presently occupying positions covered by the bargaining unit. These numbers will be used by the agency administrator to calculate the cost of the salary benefits packages proposed, discussed, and agreed upon.

Several weeks before the negotiating meet-

ings, the vice-president of nursing should assemble divisional nursing directors and managers to review the expiring contract and identify contract sections and articles that have caused problems for nursing management. Nurse managers should develop specific contract proposals of their own and explain the significance of each proposal to the agency's chief negotiator, so that she or he can represent the nurse administrators' interests effectively during contract talks.

Before bargaining talks begin, the agency's labor relations director should meet with the vice-president of nursing and other nurse administrators to tell them which actions to avoid, because they constitute unfair labor practices. Either the labor relations director or the agency's chief negotiator should inform nurse managers of the protocol that will be followed during bargaining sessions.

Negotiating Team

Both the health agency administrator and the union president will appoint a team of negotiators and will select one of the team to serve as official spokesperson for the group. The health agency's spokesperson is usually a labor lawyer or the agency's director of labor relations. The union spokesperson may be a labor lawyer or an experienced negotiator. Those who appoint the negotiating teams will attempt to select spokespersons of equal status (if one side selects a lawyer, the other is likely to select a lawyer). Negotiations are more likely to proceed smoothly if the adversaries are evenly matched.

In some agencies, the vice-president of nursing is a member of the negotiating team. In others she or he is a member of an advisory team that works closely with negotiators but does not take part in contract talks. Other members of the agency's negotiating team should include the personnel director, one divisional nursing director, and a fair-minded and well-liked head nurse or patient care manager with experience in implementing the previous contract (if this is not the agency's first contract). Members of the union's negotiating team may

include the president of the local bargaining unit and an experienced nurse from each of the agency's clinical nursing divisions, with at least one member representing each tour of duty.

Before negotiations begin, the agency's chief negotiator should confer with the board of directors, the agency administrator, and the vice-president of nursing to identify the budgetary limitations, agency policies, and licensure requirements that must be taken into consideration during contract formulation.

CONTRACT NEGOTIATIONS

Protocol requires that the official spokesperson for each side actually conduct negotiations. Other members of the negotiating teams are to remain silent unless invited to speak by their own spokesperson. If a spokesperson needs confidential information from a team member during negotiations, the group will caucus (repair to a nearby room to converse privately).

Any nurse manager who serves on a negotiating team should realize that collective bargaining is an adversary relationship in which representatives of workers and administration, each with their own objectives, vie for control of scarce resources. The union's representative strives to improve the workers' benefit package and to ensure workers' participation in agency policy decisions. The agency's representative strives to improve organizational productivity and retain management rights. Representatives of labor and management have one objective in common. Both desire rules and regulations that will reduce stress and time waste during day-to-day interactions.

The effectiveness of bargaining talk depends on the amount of authority given each spokesperson to negotiate on behalf of her or his organization. If the agency spokesperson must refer to the agency administrator or the union spokesperson must refer to bargaining unit members before agreeing with the adversary on each contract clause, contract talks will be ineffective.

Each member of the agency's negotiating

team should be familiar with the personalities, opinions, and experiences of the union negotiators. Knowing the opponents' viewpoints enables the agency spokesperson to anticipate union demands and prepare appropriate arguments and counterproposals. To bargain effectively, all members of the negotiating team should listen carefully to the opponents' presentation, analyze presented facts and arguments, and weigh each proposal against previous experience and present circumstances. As a member of the negotiating team, the vice-president of nursing's principal concern should be to ensure that the nurse manager's rights to hire, assign, schedule, and discipline personnel are not delegated, shared, or bargained away during contract talks.

The National Labor Relations Act requires an employer to negotiate in good faith with the employees' representative. Bargaining in good faith requires that the spokesperson (and the entire negotiating team) deal honestly and openly with union representatives and take no unfair advantage of the adversary during contract talks. If either side attempts to deceive the other, the resulting breakdown in trust could impair negotiation to the point that third-party mediation would be needed to reach contract agreement.

Representatives of labor and management must deal with one another repeatedly during implementation of any contract that is negotiated. Therefore, it is important for members of the two negotiating teams to remain courteous, cool, dispassionate, and rational during contract talks. Negotiations usually proceed according to a traditional pattern. In the first meetings, both spokespersons strive to establish a warm, cordial atmosphere among negotiators. One person is appointed to record the proceedings of bargaining sessions, and the place and time for a series of later meetings are agreed upon. Finally, the union's proposals, regarding both practice and economic issues, are presented to management. To enable management's representatives to explore the full nature and extent

of the union's demands, it is customary for the group to read through the entire package of the union's proposals during the first bargaining session. During this reading the agency spokesperson probes for reasons underlying each proposed contract change and assesses the union's depth of commitment to each proposal.

Following the first negotiating session, the agency's bargaining team should meet to discuss their initial reactions to union demands and decide which contract issues they can and cannot compromise about in later bargaining. The agency team should review the management proposals for contract changes that were agreed on by nurse administrators, agency executive, and chief agency negotiator. Finally, the agency's negotiating team should develop acceptable alternatives to any union proposals that they find objectionable.

During the second negotiating meeting, the union proposals should be explored in greater detail. During the third meeting the agency's proposals should be aired. Subsequent meetings are devoted to hammering out agreement on the proposals of both sides.

The management and union teams will negotiate the contract to be effective for a designated period of time. However, they may specify certain portions of the contract, such as salaries, that may be renegotiated during the contract period (Cardin and Ward, 1989).

NEGOTIATING PRINCIPLES

The strategy for negotiation is built on the following principles:

1. After reviewing the union's contract proposals as a package and the agency's contract proposals as a package, discussants should deliberate over one issue at a time and consider each in relation to the bargaining agreement as a whole.
2. Discussants should not attempt to reach final agreement on any issue until *all* issues have been fully explored and discussed.
3. Whenever the union spokesperson suggests a contract change, she or he should be asked to explain or justify the request.
4. The agency spokesperson should firmly resist any union demands that are strongly objectionable to management and should explain the reasons for management's resistance.
5. The agency negotiator should adhere firmly to the principles agreed on by the agency administrator and nurse managers, while remaining flexible on details of contract language needed to achieve the management's objectives.
6. Each spokesperson should present his or her case forcefully in order to convince and persuade opponents, but negotiators should emphasize facts rather than emotions while arguing for acceptance of their proposals.
7. Spokespersons should forestall personality clashes and emotional upsets between negotiators by repeatedly focusing discussion on substantive issues, by frequent caucusing, and by adjourning early on some occasions to provide disputants a cooling-off period.
8. Each spokesperson should keep a log during negotiation, indicating the date and time that each issue was discussed, questions advanced by each side, and the nature of the agreement reached on each issue. These logs are later useful in clarifying the meaning of certain contract clauses and resolving inconsistencies that become apparent during the final reading of the contract.
9. The National Labor Relations Board differentiates between mandatory, permissible, and nonbargainable issues in contract negotiation. Wages, hours, and terms and conditions of employment are issues that the parties are *mandated* to negotiate. Bargainers are prohibited from negotiating a contract that requires a worker to become a member of a labor

organization before she or he has been employed for 30 days. Any other subject that both parties agree to bargain about would be a permissible issue for negotiation.

10. When faced with unreasonable union demands, the agency spokesperson should present data to demonstrate the unreasonableness of the union's position. He or she may also propose an equally unreasonable counteroffer to the union. If these actions do not result in withdrawal of the union's unreasonable request, third-party intervention by a negotiator or fact finder should be requested.
11. The agency negotiator should reject outright an unacceptable union proposal, rather than acquiesce under pressure during negotiations to a proposal that nurse managers will later be unable to comply with.
12. The agency's negotiator should avoid faceoffs or trials of strength. It complicates the negotiation process when the agency negotiator takes a firm stand on some contract issue and later backs down, because the union negotiator calls his or her bluff.
13. When both sides agree on a particular contract clause, both spokespersons should initial the item, set it aside, and consider the next issue.
14. Collective bargaining is an adversary relationship; resistance by one party limits the other's success. When one side begins to balk at further concessions, there is danger that the bargaining process will break down. Several methods are used to break an impasse and reestablish give-and-take between the parties. Through accommodation, negotiators find a way to satisfy the needs of one party that is not unduly troublesome to the other. Through exchange, each side gives ground on some matter than is important to the other. Through persuasion, one side induces the other to make concessions on short-range goals in order to achieve long-range objectives.
15. During the course of bargaining, the agency spokesperson or the vice-president of nursing should report frequently to nonunion managerial personnel, apprising them of the team's progress in contract negotiations. General information, rather than specific details, should be reported, because proposals that are exchanged between the two teams early in negotiations may be altered or traded off in later bargaining.
16. As each contract clause is discussed, the vice-president of nursing should analyze the proposal in terms of patients' needs, staffing resources, agency policies, and management strategy. The nurse executive's function is to block any concessions to the union that would hamper later nursing service operations.
17. When talks break down despite efforts of both spokespersons to persuade, accommodate, exchange, and concede, the agency team should "reference back" to the agency's administrator or board of directors. By so doing, the team can review an extreme or unusual demand by the union with interested and informed parties whose judgment has not been influenced by the stress of bargaining. If the deadlock continues in spite of referencing back, both parties may agree to call in an impartial third party or fact finder to listen to both sides of the argument. The fact finder will recommend a method for settling the issue, which the parties are free to accept or reject (Castrey and Castrey, 1982). If neither side accepts the fact finder's recommendations, the parties may refer their disagreement to arbitration. In this case, both parties jointly select an arbitrator and agree beforehand to abide by his or

her decision. Then, each side presents the arbitrator with a package of proposals that is the *least* that they are willing to settle for. The arbitrator chooses one of the two packages, and both parties are bound thereby.

CONTRACT RATIFICATION

When all contract clauses have been discussed in full, altered as necessary, agreed on, and initialed by both spokespersons, the contract should be retyped. The final draft should be read carefully by all members of both negotiating teams for accuracy and clarity. If the negotiating teams agree to accept the final form of the contract after this reading, both parties must sign a memorandum of agreement indicating approval of the contract. The approved contract must then be ratified by the total membership of the bargaining unit and by the health agency's board of directors.

As soon as the agreement has been signed by the union president and the agency administrator, the vice-president of nursing and the agency's director of labor relations should meet with all nurse managers to read through the contract and explain the meaning of each clause and its application to nursing operations. Contract information must be conveyed quickly to nursing's line managers, because contract provisions become effective as soon as the agreement has been signed.

CONTRACT ADMINISTRATION

After the contract has been ratified by union membership and the agency's board of directors, the phase of contract administration begins. The vice-president of nursing and nurse administrators or managers are responsible for ensuring that contract provisions are fulfilled. Managers at all levels of the nursing hierarchy must be thoroughly familiar with contract provisions. However, experts claim that the first-level nurse manager is the key person in administering a labor contract governing nursing

personnel (Sain, 1984). The vice-president of nursing should emphasize to nurse administrators that the nurse manager is *not* responsible for interpreting the labor contract to unionized staff members (union representatives have that responsibility) but to abide by agreements reached by the negotiating teams (Cardin and Ward, 1989). For many nurses, both staff nurses and managers, the grievance procedure is the heart of the labor agreement (Fig. 32-1). The employee's immediate supervisor is the person to whom an employee grievance is first submitted.

A grievance is a complaint by an employee who alleges that a manager or management in general has violated some provision of a labor contract. The typical grievance procedure consists of four steps. In the first step the employee discusses his complaint with the supervisor. If the problem is not resolved through this discussion, the employee proceeds to the second step and presents the grievance in writing, on an official form, to the same supervisor. Frequently, a union steward accompanies the employee on this second meeting with the supervisor. If the problem is not resolved at step 2, the employee proceeds to step three, where, accompanied by the chief union steward, the employee submits the written grievance to the supervisor *and* a manager from the next higher level of organization hierarchy. If the problem is still not resolved, the employee proceeds to step 4, where, accompanied by the union president and a representative of the national union, she or he presents the written grievance to the vice-president of nursing and the health agency administrator. If the problem is still unresolved, the issue is referred to an outside arbitrator for mandatory resolution (Schermerhorn, 1989).

Employee grievances may relate to any contract provision. However, 70 percent of employee complaints relate to performance evaluations and disciplinary actions with which the employee disagrees (Patterson and Murphy, 1983). A significant number of employee griev-

Hospital XY7 Grievance Procedure

- A. Purpose To provide a method by which employees can register grievances and seek redress for wrong.
- B. Definition A grievance is a difference of opinion between employee and employer about the interpretation and application of a code of conduct, employment policy, or labor contract provision.
- C. Procedural Process
1. The employee is to discuss his grievance first with his immediate supervisor, within 30 calendar days of the situation being grieved.
 2. Within three working days of this discussion, the immediate supervisor will answer the employee's grievance.
 3. If the employee does not feel that the grievance is satisfactorily handled by his supervisor, he may advance the grievance within three working days in the following fashion:
 - a. Obtain an official grievance form from the personnel department.
 - b. Write the grievance and resolution being sought on the official grievance form.
 - c. Present the written grievance, on the official form, to his immediate supervisor.
 4. Within three working days of receiving the employee's grievance form, the immediate supervisor will meet with the employee to discuss the grievance.
 5. Within three working days of the last meeting with the employee, the immediate supervisor will write an answer to the grievance on the employee's grievance form, and meet with the employee to transmit the answer.
 6. If the employee still does not believe that the grievance has been satisfactorily handled, within three working days of receiving the supervisor's written answer, he or she may advance the grievance further in the following fashion:
 - a. Indicate on the grievance form that the supervisor's answer is unsatisfactory.
 - b. Sign and date the grievance form and present it to the department head.
 7. Within three working days of receiving the employee's grievance form, the department head will write an answer to the grievance on the form and meet with the employee to transmit the answer.
 8. If the employee is not satisfied with the department head's answer to the grievance, he or she may, within seven working days of receiving the department head's written answer, advance the grievance further in the following fashion:
 - a. Indicate on the grievance form that the department head's answer is unsatisfactory.
 - b. Sign and date the form and present it to the personnel director.
 9. Within 7 working days of receiving the employee's grievance form, the personnel director will meet with the employee to discuss the grievance.
 10. Within 7 working days of meeting with the employee, the personnel director will write a final answer to the grievance on the grievance form and transmit the answer to the employee in a conference.

Figure 32-1 Sample grievance procedure.

ances are referred for arbitration, so that the nurse manager should understand the criteria used by arbitrators to resolve common grievance issues. When a grievance relating to a disciplinary action is unresolved at the first four

steps of the grievance procedure, the arbitrator will determine whether a rule of conduct existed relative to the behavior for which the employee was disciplined, whether the rule was publicized, whether the grievant did violate the rule

whether the grievant was informed of possible consequences of rule violation, whether management conducted a fair, impartial, and thorough investigation before applying discipline, whether investigation produced substantive proof that the employee had violated the rule, and whether disciplinary action was too severe for the alleged misconduct. The nurse manager can decrease the probability of having her or his disciplinary decisions reversed by applying the same criteria when deciding whether and how to discipline an employee.

DECERTIFICATION

If the majority of bargaining unit members become dissatisfied with the union's ability to bargain on their behalf, they may seek to *decertify* the union. Essentially, the decertification

process is the reverse of the certification process. An employee submits signed documents proving that she or he represents at least 30 percent of employees in the bargaining unit and petitions the National Labor Relations Board to rescind the union's authority as sole bargaining agent for the group. The National Labor Relations Board sets the date and posts notice for a secret ballot vote of bargaining unit members to decide the matter. Results of the election are based on the majority of votes cast, not the majority of bargaining unit members (Laliberty and Christopher, 1986).

SUMMARY

The nurse manager represents health agency owners, executives, and administrators when establishing and maintaining amicable relations

RESEARCH BRIEF

Union Membership and Job Satisfaction

Purpose: Explore the relationship between unionization and job satisfaction of residential staff in homes for developmentally disabled.

Subjects: Sixty-four unionized and 97 nonunionized staff members working in 25 residential settings for developmentally disabled persons in a midwestern state

Method: Investigator developed a 50-item questionnaire to measure job opinions and attitudes about: (1) resident activities; (2) dissatisfaction with work environment; (3) problem areas. This tool and a brief explanation letter were disseminated to the 25 residences, and the residence manager for each asked staff present in a regular staff meeting to complete the questionnaire anonymously.

Findings: Subjects were 82 percent female; 59 percent between 18 and 27 years of age; 74 percent with some college education; 41 percent employed in the residence a year or more. Ninety-five percent of unionized and 59 percent

of nonunionized staff had more than a high school education. Sixty percent of unionized, and 32 percent of nonunionized staff had work experience in other homes for developmentally disabled. Eighty-four percent of unionized and 53 percent of nonunionized staff had more than 6 months' experience in the current home. Unionized staff had higher scores than nonunionized on dissatisfaction with work environment and problem area subscales.

Application: Perhaps unionized staff reported greater job dissatisfaction than nonunionized because the former feel free to express dissatisfaction (emboldened by union support). Perhaps unionized staff withstand dissatisfaction and remain longer in a job, because they relieve job stress by ventilating complaints. If these findings are typical, nurse managers need not expect unionization of residence staff to result in increased turnover.

Source: Coughlin, R. Job satisfaction of staff in unionized and nonunionized community residences for persons with developmental disabilities. *Journal of Rehabilitation Literature*, February-March 57, 62-69.

with agency employees. Unionization is increasing among health care workers. A nurse manager may or may not serve on the management team during labor contract negotiations. However, all nurse managers are responsible for administering any contract forged between the agency and a union representing the agency's nursing personnel. A nurse manager should know what actions by a manager and what actions by a union or its members are illegal during unionization of the work force; what steps must be taken by a union to be declared the sole collective bargaining agent for a group of employees; what procedures are to be followed by the management team and the union team in preparing to negotiate a labor contract. Finally, the nurse manager should understand the roles played by a fact finder and an arbitrator during contract negotiations.

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Glossary

absence frequency rate: The total number of episodes of absence divided by the average number of agency employees during the year multiplied by 100

absenteeism: Any time spent away from scheduled work

accreditation: A process by which a voluntary, nongovernmental agency evaluates an agency or program and approves it as meeting certain predetermined criteria

adhocracy: A fluid type of organizational structure in which special project teams of diverse specialists are assembled from different parts of organizational hierarchy to execute specific, time-limited tasks

administrative nursing care: Also termed *ministerial care*. Comprises those activities that are undertaken on the patients' behalf but removed from their presence and that relate to their environmental, social, or financial welfare

administrator: A manager whose position is located in the next-to-top layer of organizational hierarchy

advance directive: Written instructions regarding the provision of medical care in the event that an individual becomes incapacitated

allocation: The process of deploying available resources in the most effective and least wasteful manner

assault: Knowingly threatening another with the likelihood of immediate harmful or of tensive bodily contact

attitude: A disposition or opinion that predisposes a person to a habitual manner of action

authority: A right conferred on an individual to make decisions, command resources, issue orders, or impose sanctions

autonomy: The condition in which an individual sets his or her own performance goals and work methods, evaluates his or her own performance, and modifies his or her behavior accordingly

basic need: An element that is necessary for normal life and functioning

battery: Deliberate touching of another without authorization

beneficence: Deliberate action to improve the welfare of another

brainstorming: The process of generating the greatest possible number of problem solutions in shortest possible time through use of highly imaginative and uncritical thought processes

budget: A numerical description of expected income and planned expenditures for an organization for a specified period of time

budgeting: The allocation of scarce resources for proposed programs or projects over a specified period of time

capital expenditure: A large financial outlay for buildings or equipment that commits the agency to a particular path for some time in the future

catchment area: The geographical territory from which an agency's clients are drawn

categorical imperative: Philosophical principle

ple that one should act only according to a rule that one would wish to be universally applied

centralization: A tendency within an organization for the majority of decision-making power to be retained by the chief executive(s)

change: The process of moving from one system to another

first-level change: Change in the knowledge of the change target

second-level change: Change in attitudes of the change target

third-level change: Change in the behavior of the change target

closure: A sense of completion experienced by a worker on finishing a particular task

cognitive dissonance: The sensing of a lack of agreement between one's beliefs and one's actions

collaborative research: A scientific study in which several investigators explore multiple aspects of the same problem

collective bargaining: A rule-making process that is undertaken jointly by representatives of labor and management in a given agency

communication: The transmission of information, opinion, and intention between and among individuals

concept: An abstract idea that is arrived at through consideration of a number of particular instances

confidentiality: The practice of protecting privileged patient information from unauthorized, inappropriate use

continuing education: All planned learning activities beyond basic nursing education that are designed to provide knowledge, skill, and attitudes that can be expected to enhance the individual's nursing practice

controlled variable staffing: A method of scheduling employees that varies the numbers of on-duty staff members to match workload increases or decreases, while controlling the number of supplementary staff

assigned to the unit during periods of increased workload

cost: The expenditure required to achieve a desired object or condition

committed costs: Expenses that are required to maintain an agency's legal and physical existence

direct labor costs: Wages paid to employees who are engaged directly in producing a specific output

fixed costs: A necessary expense for a program that is unrelated to volume of program output

indirect labor costs: All labor costs not included in direct labor costs

overhead costs: Expenses that are essential to agency operations but are not directly related to volume of work output

period costs: Expenses that are associated with a period of time rather than with a level of activity

semivariable costs: Expenses that change as the volume of output changes but not in direct proportion to change in work output

sunk costs: Monies already spent on or committed to a specific purchase

unit cost: The price of turning out one unit of production

variable cost: An expense for a program that increases as program output increases

cost accounting: The process of associating costs with the purposes for which they were incurred

cost-benefit ratio: The numerical relationship between the financial cost of a program and the value of its benefits

cost center: The area of agency activity for which a single manager is responsible for day-to-day functioning

criterion A value-free description of a variable that is accepted as an appropriate indicator of quality

critical limiting factor: A factor that most effectively blocks success when several factors are potentially unfavorable

cyclical scheduling: Assignment of work days and shifts for personnel according to a predictable and repeating pattern

decentralization: The tendency in an agency for a large measure of decision-making power to be delegated to mid-level and lower-level employees

deception: Passive, indirect obscuring of truth about a situation

decision: The last step in a process by which an individual chooses one alternative from several in an effort to achieve a desired objective

Declaration of Helsinki: A set of rules governing biomedical ethics that was developed by the World Medical Association in 1964

Delphi method: A system of noninteractive group decision making in which a series of anonymous questionnaires and summaries of questionnaire results are used to reach consensus

deontological ethics: A school of ethics based on the assumption that certain fundamental duties and obligations determine "right" conduct

descriptive ethics: A study of the ways in which people actually behave

diminishing utility: The tendency for the benefits of an activity to decrease following introduction of additional input beyond a critical point

direct nursing care: Care given by nursing staff members while working in the patient's presence and related specifically to his or her physical and psychological needs

DNR: A physician's order to refrain from resuscitating a patient following cardiopulmonary arrest

DRGs: Diagnostic related groups: A system of classifying patients into categories on the basis of their medical diagnosis and use of hospital services

duty: A moral obligation that binds the individual to follow a particular course of action

economic resources: Sources of support that are in short supply

elements of care: Those actions taken or avoided by caregivers that can be expected to lead to desired patient outcomes

ethics: The division of philosophy that relates to moral judgements about human conduct

ethical theory: A set of interrelated moral principles by which to assess moral rightness and wrongness of human conduct

euthanasia: Causing the painless death of another for the purpose of relieving or preventing suffering

executive: A manager whose position is located in the top layer of organizational hierarchy

external degree program: A university program leading to a degree for which there are no admission requirements and no required classroom attendance and in which credit is granted for independent study and learning through life experiences

feedback: Information about any aspect of system process or output that can be used to evaluate system performance and guide the system toward more effective functioning

financial control: The process of committing operating managers to the financial plans and policies that have been established by an agency's top executives

flexible scheduling: Assignment of employees' work time in combinations of 8-, 10-, 12-, and 4-hour shifts so as to accommodate employees' preferences and concentrate maximum numbers of staff at periods of peak workload

formal organization structure: Official arrangement of jobs and positions into an interactional network that defines how information is to be communicated and work is to be organized

freedom: The condition of being unencumbered of control by others

functionalized organization structure: An arrangement of positions within an agency in which a hierarchical chain of command is given responsibility for day-to-day operations but specialized staff units are given

- command authority over employees for certain designated functions
- futuriasis (Toffler):** A sense of discomfort and disorientation produced by rapidly accelerating change in one's environment
- game:** A quantitative decision model used to identify competitive strategy in a win-lose situation
- Good Samaritan Law:** A law that exempts doctors and nurses from liability if they render first aid in an emergency
- health teaching:** All efforts made by health care workers to inform, instruct, and motivate a patient and his or her family about the patient's care and support following discharge from the health agency
- idea checklist:** A standard series of questions that are designed to elicit thoughts that are not obvious and not habitual concerning problem elements
- induction training:** A brief, standardized indoctrination to an agency's philosophy, purpose, policies, and regulations given to each worker during his or her first two or three days of employment in order to ensure his or her identification with agency philosophy, goals, and norms
- inference:** A thought process in which the individual goes beyond available data in making a judgment concerning a particular object or event
- influence:** The imposition of a moderate degree of power in subtle fashion so as to move others to behave in accord with one's own preferences
- information overload:** The input of greater amounts of information than an organization's decision makers can effectively process
- input:** The operating material and energizer of a system
- in-service education:** Ongoing, on-the-job instruction that is given to enhance the workers' performance in their present job
- interview:** A planned, purposeful conversation between two individuals in which each seeks information from the other to be used for their mutual benefit
- job:** A work assignment consisting of a set of tasks, duties, and responsibilities that are different from those of any other work assignment
- benchmark job:** A job that is sufficiently representative of a wide range of jobs and sufficiently well understood by managers that it can be used as a standard against which to measure the value of other jobs
- job analysis:** The process of objectively determining the specific duties, responsibilities, and conditions associated with a specific job
- job classification:** A specific grouping of jobs, all of which exhibit a similar level of difficulty or responsibility and command the same level of financial compensation
- job description:** A written account of the organizational relationships, overall responsibility, specific duties, and working conditions of a specific job
- job evaluation:** A systematic method of appraising the work of each job in relation to all other jobs in the same organization
- job specifications:** The personal requirements and capabilities deemed necessary for effective performance of a particular job
- justice:** Fair distribution of benefits and burdens among individuals
- labor:** The expenditure of physical or mental effort to make goods and services available to others
- labor agreement:** A code of procedures for the orderly resolution of those questions and conflicts that are likely to arise between labor and management in the course of daily events
- law:** A system of rules and procedures by which individuals in a society resolve disputes and problems without resorting to the use of physical force
- administrative law:** Rules and regulations that have been established by various governmental agencies
- common law:** The body of legal principles

- that have evolved from numerous court decisions
- statutory law:** The enactments of federal and state legislative bodies
- leadership:** A social relationship in which one individual is more able to influence others than to be influenced by them
- autocratic leadership:** The style of employee guidance in which a task-oriented leader uses positional and personal power to manipulate and coerce employees to act in accord with his or her own goals and plans
- democratic leadership:** The style of employee guidance in which the leader uses personal and positional power to draw forth ideas from employees and motivate them to set their own goals, make their own work plans, and evaluate their own performance
- laissez-faire leadership:** The style of employee guidance in which the appointed leader abdicates leadership responsibility, leaving workers without direction, supervision, or coordination
- learning:** A change in behavior in a desired direction that results from a prescribed experience
- license suspension:** Temporary denial of the rights conferred by a license
- licensure:** The process by which a competent authority grants permission for a qualified individual to perform certain specified activities
- line and staff organization structure:** An arrangement of positions within an agency that provides a hierarchical chain of command for executing the day-to-day work of the organization and selected management specialists to assist the executive with specific functions
- line organization structure:** A purely hierarchical chain of command in which each employee is supervised by and is responsible to a single, clearly identified superior
- malpractice:** Negligence or carelessness by professional personnel
- management by objectives (MBO):** A method of employee direction characterized by thoughtful deliberation and agreement on performance objectives by each superior-subordinate pair
- marginal analysis:** A mathematical method for computing the additional value to be realized from expenditures above the minimum level of spending for that activity
- matrix organization:** A relatively flat hierarchical structure in which a constantly changing project team organization is superimposed on a fully functionalized line and staff organization structure
- memorandum:** A brief, informal, written communication that conveys the main points of a work-related message in timely fashion and conversational language
- mentor:** An older, wiser, more experienced professional who guides and supports a younger coworker so as to facilitate the junior's professional development and advancement
- metaanalysis:** An analysis of analyses
- model:** A phenomenological analogy used to represent something that cannot be directly observed and about which deeper understanding is sought
- moral principle:** An action guide for protecting and promoting human interests
- need:** Lack of or desire for something required or wished for
- negligence:** Carelessness or failure to act as a prudent person would ordinarily act under the same circumstances
- nominal group:** A method of group decision making that combines noninteractive and interactive deliberations by group members
- nonmaleficence:** Avoiding giving harm to others
- norm:** The current level of performance with regard to a particular criterion or indicator

- as determined by an analytical study of the population in question
- normative ethics:** The study of the criteria that must be met for a behavior to be considered "good"
- Nuremberg Code:** A set of standards for ethical biomedical research that was developed by the Allies following World War II and used to evaluate the behavior of Nazi physicians
- nursing audit:** Analysis of data relating to nursing process or patient outcomes for the purpose of evaluating the quality and effectiveness of nursing care interventions
- nursing order:** A command given by one nurse to others that prescribes a desirable course of action to be followed in caring for a specific patient
- objective:** A concrete statement of intention or an external goal toward which effort is directed
- optimizing:** Making a decision that will yield the greatest possible payoff for a specific input of time, energy, and material
- organizational centrality:** The degree of a position's closeness to or distance from all other positions in an agency's communication network
- organizational development:** A process for improving the methods by which employees relate to one another and work together to realize organizational goals
- organizational retrenchment:** Reduction of agency size and services in response to decreased demand or reduced resources
- orientation:** An individualized training program intended to acquaint a newly hired employee with job responsibilities, workplace, clients, and coworkers
- OSHA:** Occupational Safety and Health Act of 1970, the purpose of which is to ensure safe and healthful working conditions
- output:** The product or service resulting from system throughput
- Pareto analysis:** A systematic method for identifying which of several possible causes of a problem is the one that is responsible for most problem occurrences
- participative management:** A method of organizational direction that is characterized by the distribution of responsibility and authority throughout all layers of organizational hierarchy
- patient-classification system:** A means of categorizing patients according to the amount and complexity of their nursing care requirements over a period of time
- Patient Determination Act of 1991:** The law that requires health care providers to inform patients of their legal right to refuse or accept treatment in the event of incapacitation
- policy:** A long-range statement of agency goals or intended course of action
- position:** The aggregate of duties, tasks, and responsibilities that requires the services of a single employee
- positive discipline:** Discipline without punishment
- power:** The ability to influence another to behave in accord with one's wishes
- personal power:** Ability to influence others through strong self-concept, high self-esteem and confident manner
- positional power:** Organizationally sanctioned right to influence others through job-related responsibility and authority
- primary care:** Care given clients at the time of their entry into the health care system
- primary nursing:** A system of nursing service that is characterized by a strong continuing bond between a particular patient and a particular nurse
- problem:** A psychological state of discomfort that results from confrontation with a stimulus for which the individual has no ready response
- problem solving:** The process of overcoming obstacles that impede one's acquisition of a desired goal
- procedure:** A short-range statement of technique to be followed in achieving an agency objective

product: A tangible or evident result from agency effort

program: A series of activities that work together to achieve a desired goal

psychodrama: Acting out a highly charged interpersonal relationship under simulated conditions for the purpose of identifying more effective ways of responding to the stress of the relationship

quality assurance: The process of establishing desirable standards of nursing care and then providing care to meet those standards

queuing: Lining up or backing up objects or entities, such as backing up important decisions when threatened with information overload

recruitment: Securing applicants to fill vacant budgeted positions

reliability: Degree of consistency with which a device measures whatever it is designed to measure

Respondeat superior: The legal principle "Let the master answer" (for problematic behavior of the employee)

responsibility accounting: Classification and accumulation of financial data relating to a specific agency unit or program

right: A just claim made by one person on another for power or privilege

risk: Lack of control over outcomes of action

role: Constellation of behaviors and attitudes that are expected of an individual by those with whom he or she interacts

role ambiguity: Contradictions between formal and interactional definitions of expected behavior

role conflict: Contradictory expectations of performance, so that certain expected behaviors are antithetical to others

role dissensus: Disagreement between self and others about behavior appropriate to the individual's assigned or ascribed role

salary: Financial compensation for the labor of a worker who is not hourly rated

satisficing: Making a decision that is good

enough to meet a set of minimum requirements

scheduling: Advance determination of patterns of on- and off-duty hours for workers in a particular service unit for a prescribed period of time

staff development: All training and education provided by an employer to improve the occupational and personal knowledge, skills, and attitudes of vested employees

staff leveling: Moving personnel from areas of oversupply to areas of undersupply

standard: A descriptive statement of desired level of performance against which to evaluate the quality of service structure, process, or outcomes

status: The rank that a reference group confers on an individual, based on their assessment of the individual's worth and significance to the group's interests and values

strategy: A clever overall plan for applying methods and techniques in pursuit of a goal

maximax strategy: An optimistic approach in which, while assuming the highest possible payoff from use of any action, the individual chooses that action alternative that will yield the largest payoff

maximin strategy: A pessimistic approach in which, while assuming the worst possible result from any action, the individual selects that action alternative that will yield the best result under the most unfavorable circumstances

mini-regret strategy: An approach designed to minimize the surprise resulting from any action decision by selecting the action alternative that will yield a result midway between the most desired and the least desired outcome

optimizing strategy: An approach in which an individual analyzes a problem, determines desired outcomes, identified possible solutions, predicts the consequences of each action, and selects the course that yields the greatest amount of preferred outcomes

- satisficing strategy:** An approach whereby an individual chooses a problem solution that is not ideal but that is good enough to meet minimum standards of acceptance
- style:** A distinctive or characteristic manner of performance
- supervisor:** Any person who has authority to hire, direct, transfer, suspend, lay off, recall, promote, discharge, reward, or discipline other employees
- supplementary staffing agency:** An organization that employs nurses and assigns them on a contractual basis to work in different agencies to meet variable staffing needs
- synectics:** A method of problem solving in which metaphor and fantasy are used to stimulate creative thinking
- syntality:** A feeling of "we-ness" that develops among group members as a result of interactions during pursuit of common goals
- system:** A set of objects or elements in interaction to achieve a specific goal
- system analysis:** A scientific and detailed examination of a system that identifies system purpose, requirements, elements, subsystems, and subsystem relationships
- task:** An employment obligation that calls for the expenditure of effort toward a particular purpose
- teleological ethics:** The school of ethics that is based on the assumption that the rightness or wrongness of an act depends on the consequences of the act
- theory:** A formulation of the apparent relationships among several principles that relate to a topic of interest
- throughput:** The process by which a system converts energy into processes and products for use by the system or its environment
- trend analysis:** Graphing data from the foregoing three to five years in order to identify the direction and degree of change in a particular statistic
- turnover:** The percentage of employees who separate from their jobs during a year
- union:** A labor organization in which employees participate for the purpose of dealing with their employer about grievances, labor disagreements, wages, work hours, and conditions of employment
- utility:** The pleasure, satisfaction, or happiness that results from a particular action
- validity:** The degree to which a device measures what it is purported to measure
- value:** That quality of a thing, event, or action that makes it worthy of esteem
- veracity:** Truth telling
- wages:** Financial compensation for the labor of an hourly rated, nonsupervisory employee
- work sampling:** A process in which an external expert observes the activities of a group of employees at regular intervals, records the activity each is engaged in, and generalizes from the observed behavior sample to estimate the proportion of a worker's total time spent in performing each task

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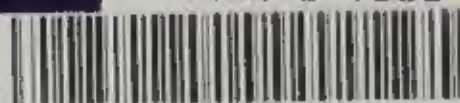
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